



Towards Nationwide Roll Out of Fecal Sludge Management in Indonesia

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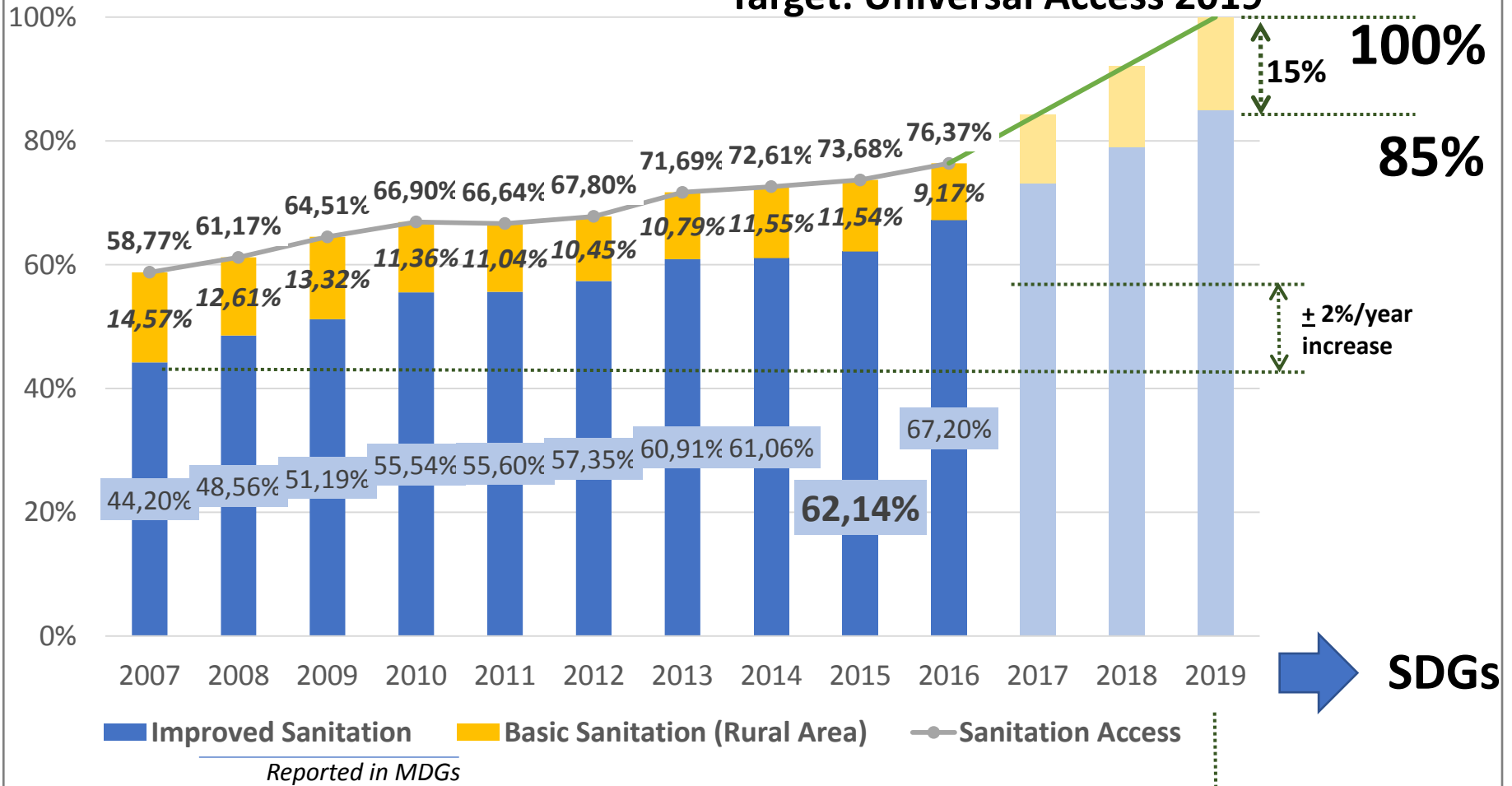
Ministry of Public Works and Housing

**Ministry of National Development Planning
/ the National Development Planning Agency**



Mid-Term Development Plan 2015-2019

Target: Universal Access 2019



Indonesia Sanitation Development

Universal Access for Sanitation
National Mid-Term Dev'p Plan 2015-2019



SDGs

late 90's - early 2000
± 150 septage treatment plants built in
very ambitious scale (to serve 100% population)
in cities/regencies resulting in less than only
10% in use and well-operated



> 90% “septictanks” were actually **pit latrine**
lack of demand for septage treatment plant

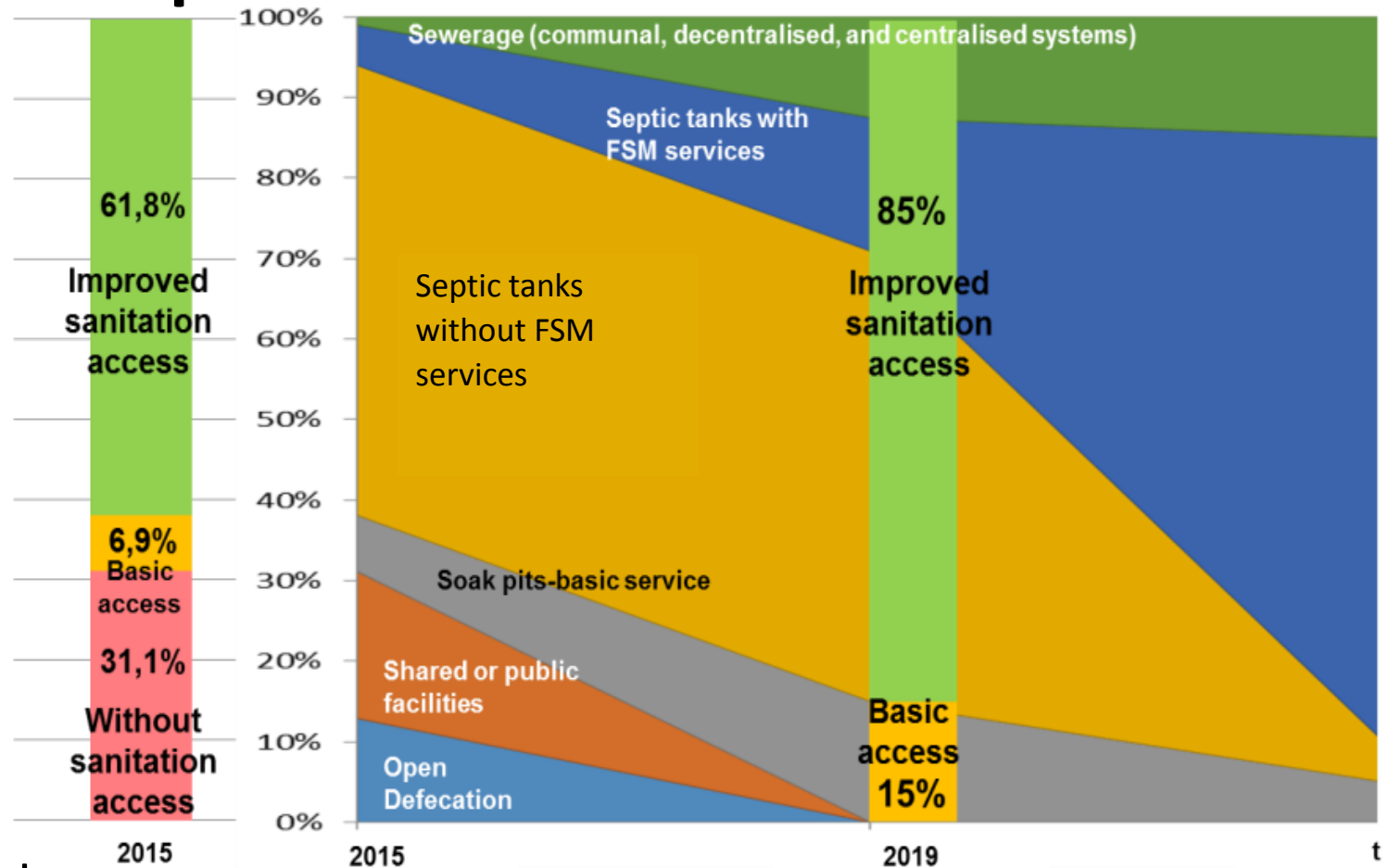
no regulatory framework
for septage management



lacking awareness from
the stakeholders

Before FSM implementation ...

why is it important ?



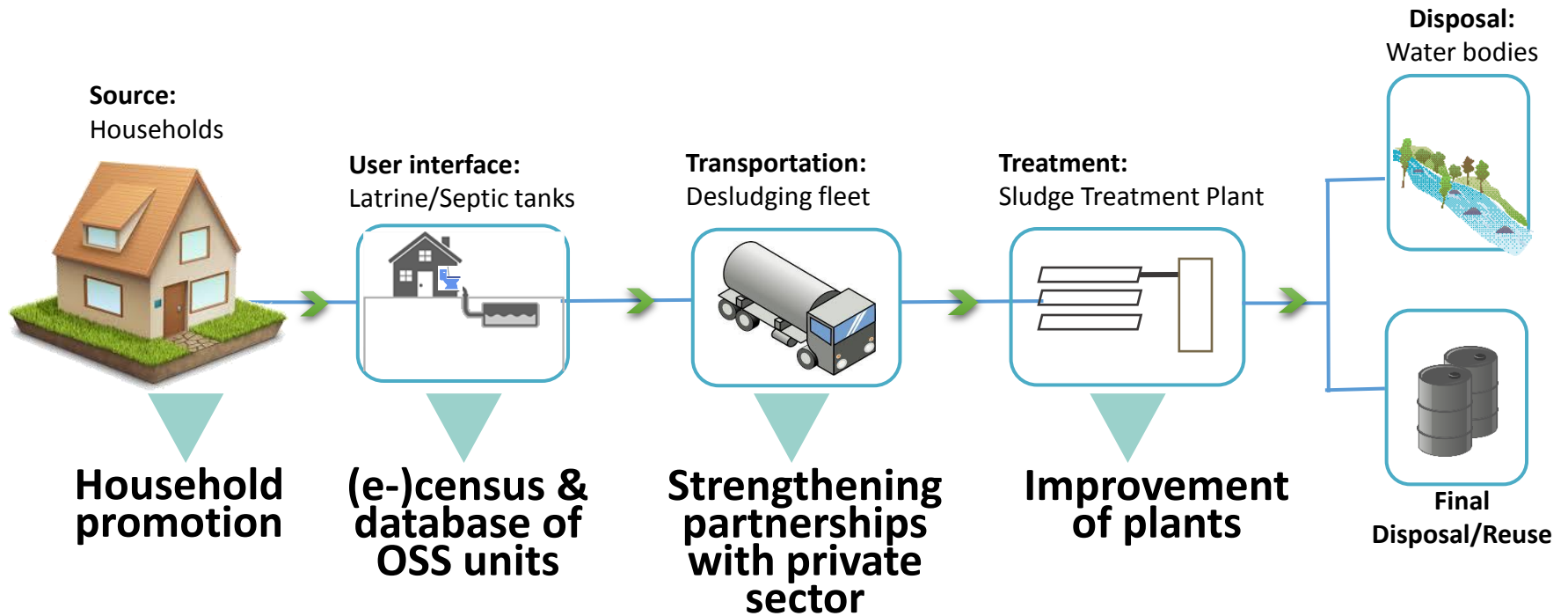
on-site system:

90% of wastewater system

and **remain the majority** for the next 20-30 years

● **2/3** population will be in **urban areas in 2035**

what and how ?



Enabling/improving managing institutions, and preparing SOPs

Preparing local regulations: sector management, tariff, household obligation

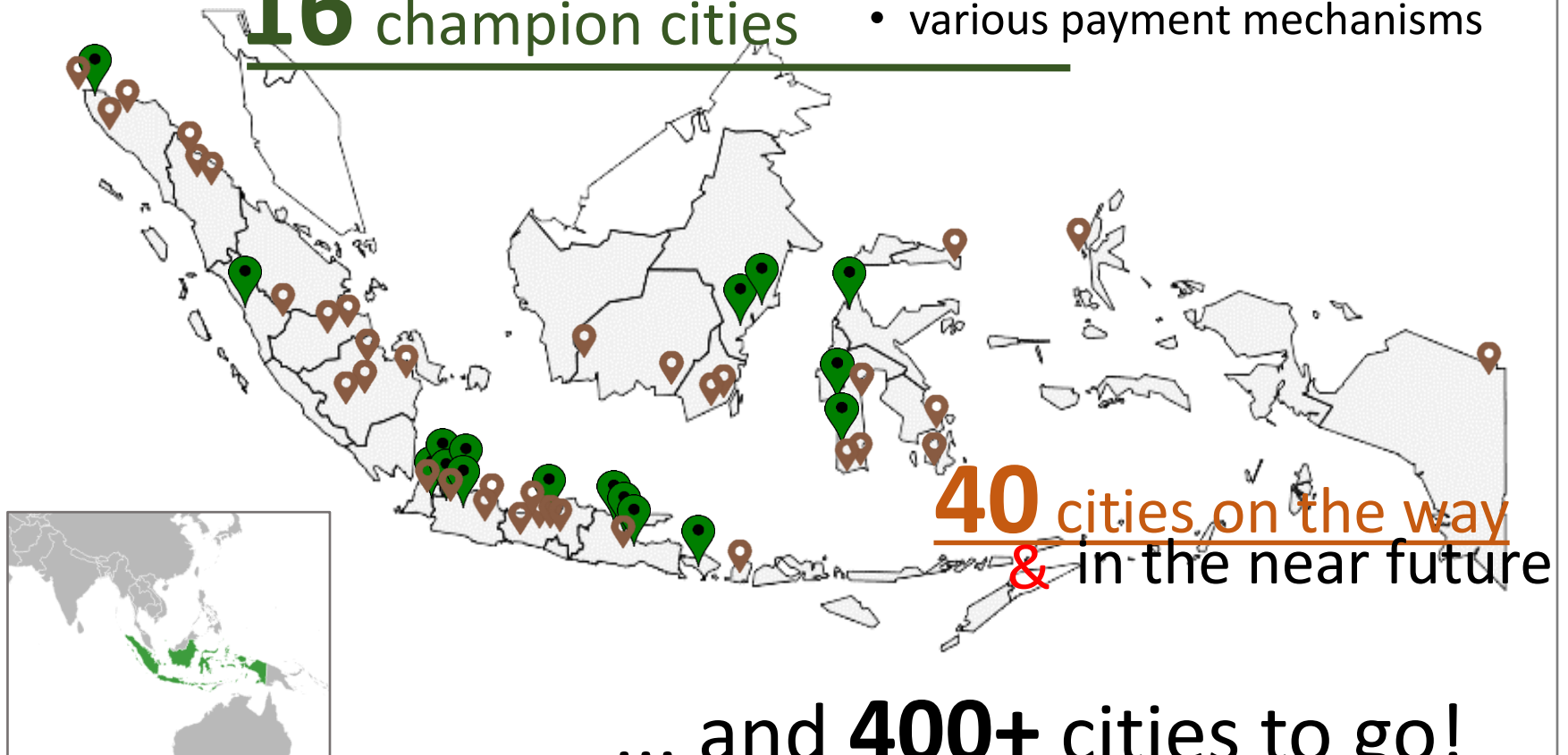
Advocacy to LG/Head of LG

FSM in Indonesia

INITIAL PERIOD

- regular desludging & on-call basis
- different settings for managing institutions
- monthly tariff: 0.65 – 1 USD per households
- various payment mechanisms

16 champion cities

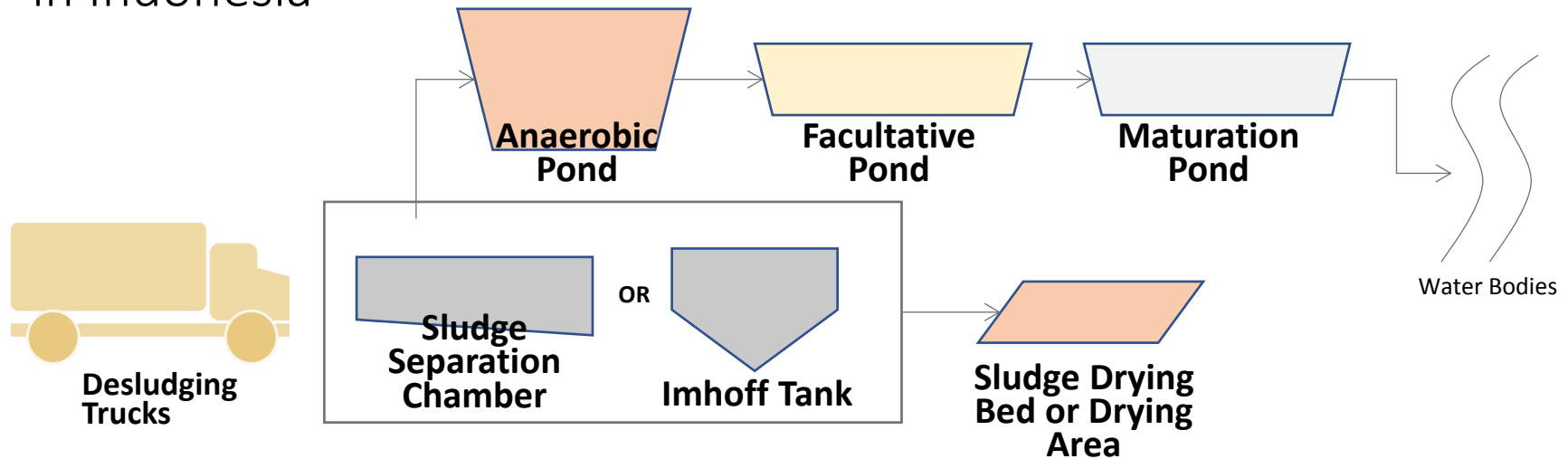


40 cities on the way
& in the near future

... and **400+** cities to go!

Common treatment option

in Indonesia

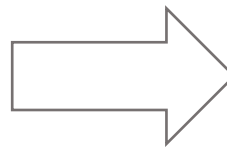


next challenge

because **new effluent standard**,
existing technology needs upgrading

pH	6-9
BOD	100 mg/L
TSS	100 mg/L
Oil and Grease	10 mg/L

before



pH	6-9
BOD	30 mg/L
COD	100 mg/L
TSS	30 mg/L
Oil and Grease	5 mg/L
Ammonia	10 mg/L
Total Coliform	3000 /100 mL

now

city of BEKASI



before

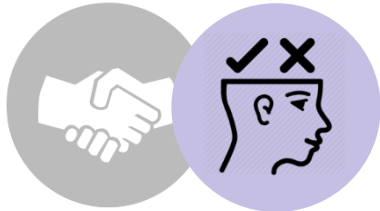
after

septage treatment plant	120 m ³ /day using conventional technology (not fully used)	270 m ³ /day using fully mechanical for increasing desludging
managing institution	Technical Operating Unit for Septage only	Technical Operating Unit for Domestic Wastewater (UPT PAL)
staffing	20 person @ ± 60 USD/month	45 person @ ± 300 USD/month for optimized system, additional customer services and marketing
regulation	Only for tariff on-call desludging	Mayor Regulation for domestic wastewater management
records	Manual records	Digital records with Management Information System
budgeting	Limited operational budget hard to convince the legislative	540.000 USD (2017) allocated for septage under UPT PAL

LESSONS Learnt (1) key findings & challenges

from the initial and other nation-wide program

Commitment & Awareness



- Commitment of Heads of LGs
- Incomprehensive understanding of wastewater management

Operator & Service Provider



Clear mandate to one assigned institution

Central Government Direction & Support



- Clear policy on the sector
- Support the capacity of local governments

Regulation



Legal basis for LGs in implementing FSM, tariff setting, and households obligation in FSM

LESSONS Learnt (2) key findings & challenges

from the initial and other nation-wide program

Technical



Availability of:
- Septage treatment plant
- Desludging and transporting fleet

Operational



Operational scheme based on condition and target services, (related with period of emptying, zoning and scheduling)

Financial



Tariff and bridging fund

Promotion



Improving households' awareness, understanding, & willingness

MOVING FORWARDS



develop
**manuals &
guidelines**

provide
**advocacy
& capacity
building**
to local stakeholders

strengthen
**collaboration
with various
parties**
ministries, donors & NGOs

prepare
**suitable
technology
options**

with incremental
approach

improve
**cities'
eligibility
criteria**

for financial / technical
assistance

upgrade
**onsite
system**

Acknowledgment

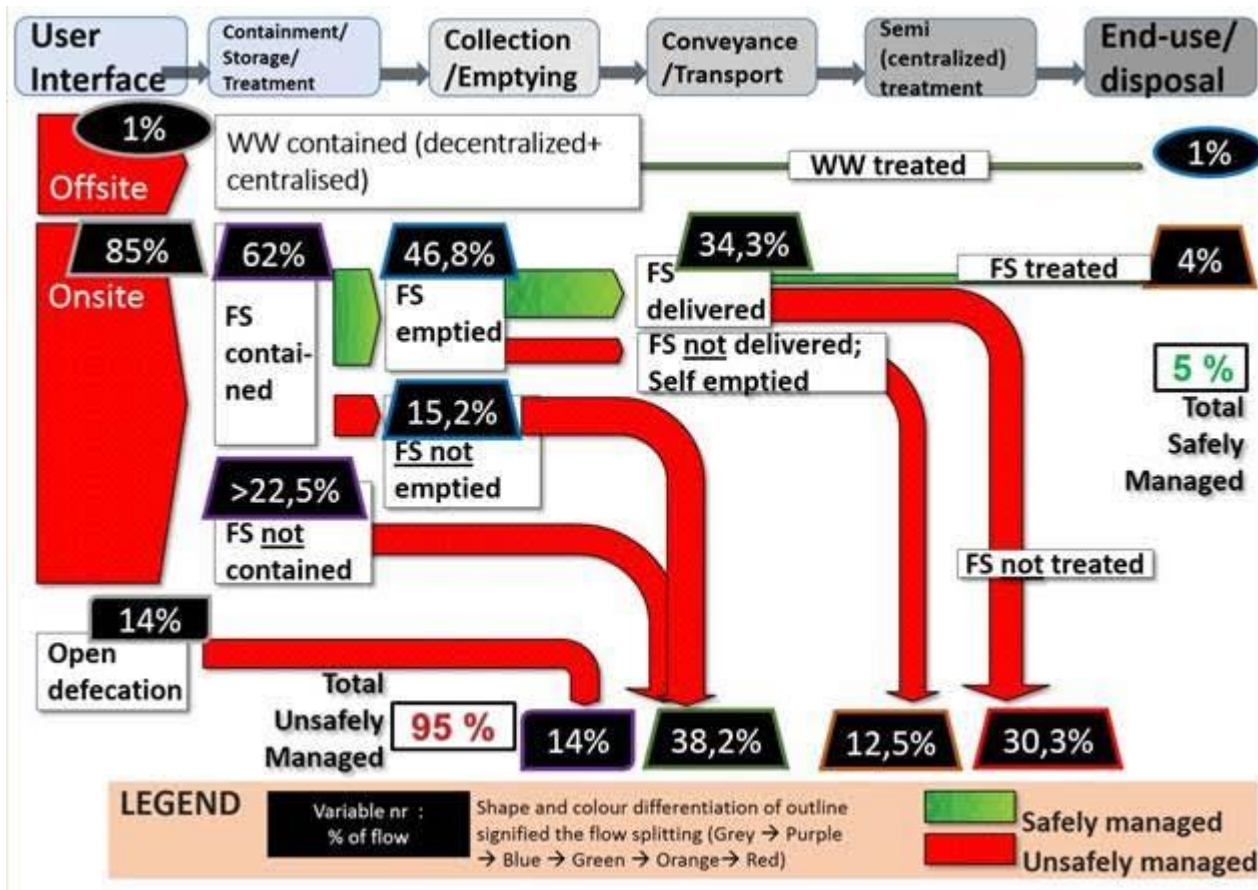
USAID IUWASH PLUS (Foort Bustraan)

Rudy Yuwono



Looking forward to hearing your inputs!

why is it important ?



Despite the good progress, it is estimated that a great percentage of fecal sludge is still unsafely managed