

INDONESIA TOWARDS SDG'S 2030

Asia Wastewater Management Partnership
Yangon, December 13th 2017



MINISTRY OF PUBLIC WORKS AND HOUSING
DIRECTORATE GENERAL OF HUMAN SETTLEMENTS

Goal no.6 :

Clean Water, Adequate & Equitable Sanitation



Safely Managed:

Use of an improved sanitation facility which is not shared with other households and where excrete are safely disposed in situ or transported and treated offsite



Basic:

1. facility owned by household, facility using S-curved water seal toilet, and connected to sewer network
2. facility owned by household, facility using S-curved water seal toilet, and connected to septic tank
3. facility owned by household, facility is latrine with slab.

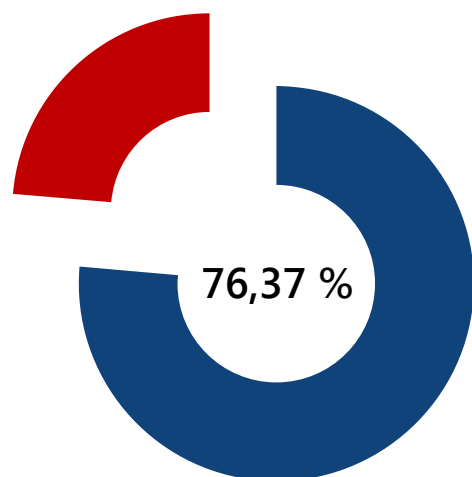
SDG's Goals



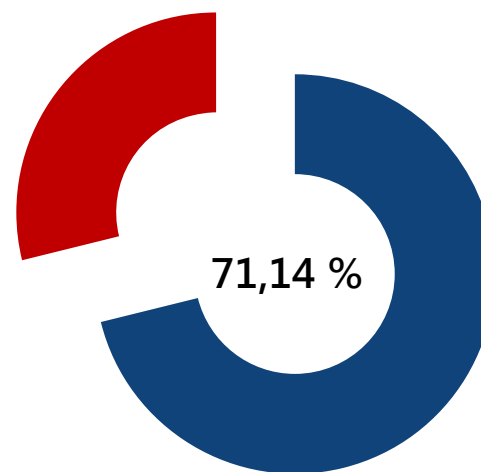
1. *Safely managed*
2. *Basic*



CURRENT ACHIEVEMENTS OF WATER AND SANITATION ACCESS IN INDONESIA



SANITATION



WATER

■ Access Achievement ■ GAP

Indicator	Achievements			2019 Target	Source
	Safely Managed	Basic	Total		
Sanitasi	67,20%	9,17%	76,37%	100%	BPS, 2016
Air Minum			71,14%	100%	BPS, 2016

NATIONAL AGENDA
100-0-100
NATIONAL MEDIUM-TERM
DEVELOPMENT PLAN
2015-2019

85% SPM : Safely
Managed Sanitation
Access
✓ 85% On Site System
✓ 15% Off Site System

15% Basic Sanitation
Access:
For rural area with low density and
Low inadequate sanitation

TARGET

INTERNATIONAL AGENDA
SUSTAINABLE
DEVELOPMENT GOALS
2030

"Ensure availability and
sustainable management of
water and sanitation for
all."

6 CLEAN WATER
AND SANITATION



6.2

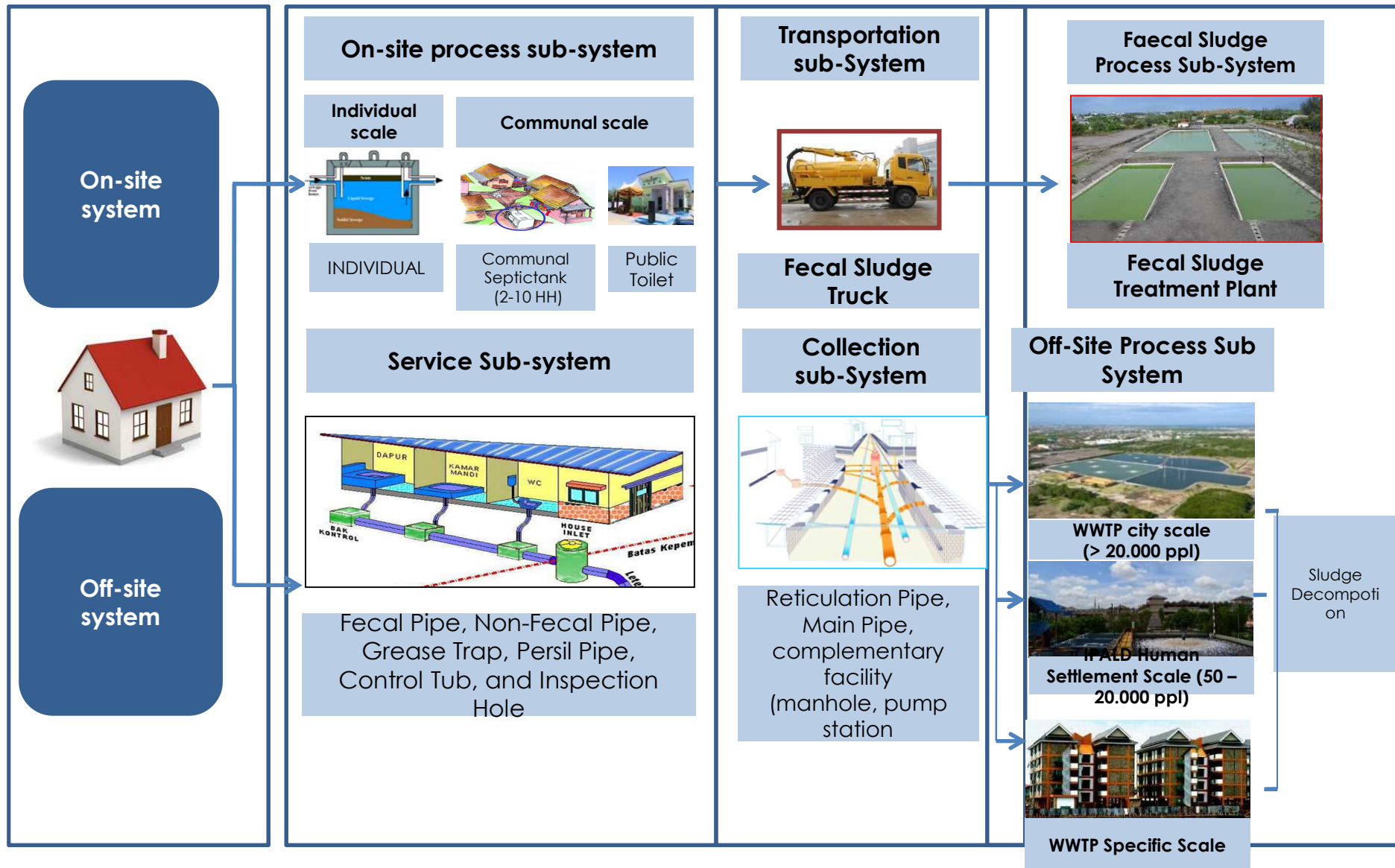
Achieve access to adequate and
equitable sanitation and hygiene for
all and end open defecation,

6.3

Improve water quality by reducing
pollution

WASTEWATER MANAGEMENT CONCEPT

(Minister of Public Work and Housing Regulation No.4/2017)



ISSUES AND CHALLENGES

Up-stream

- Majority of domestic wastewater is managed by on-site system
- Low awareness of hygiene and sanitation in communities
- Low quality of sanitation facility
- Low access to sanitation facility
- Limited land availability in slum urban area

Down-stream

- Polluted water sources
- Low effluent quality from on-site system
- High cost of investment, operational and maintenance for off-site system
- Non-functional existing sanitation facility



WASTEWATER QUALITY STANDARDS

Future Challenges

The existing technology of the wastewater treatment facility needs to be upgrade in terms of the latest wastewater quality standards issued by the Minister of Environment and Forestry



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

**MoEF Regulation No 5 /2014
(old standard)**



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

**MoEF Regulation No 68/2016
(new standard)**

EXISTING CITY SCALE SEWERAGE IN INDONESIA

No	City	Units	System	Capacity (CMD)	House Connection (unit)
1	Medan	1	UASB	10.000	20.480
2	Parapat	1	Aerated Ponds	2000	253
3	Batam	1	Oxidation Ditch	2.852	300
4	Jakarta Zone 0	1	MBBR	38.880	1.852
5	Tangerang	1	Aerated Ponds	2.800	300
6	Bandung	1	Lagoons	80.835	114.444
7	Cirebon	4	Lagoons	20.500	8.136
8	Surakarta	3	Biofilter & Lagoons	14.000	10.039
9	DI Yogyakarta	1	Aerated Ponds	15.500	20.158
10	Denpasar & Badung	1	Aerated Ponds	51.000	14.546
11	Balikpapan	1	Aerated Ponds	800	1.385
12	Banjarmasin	7	RBC	18.000	6.722
13	Manado	1	RBC	2.000	100



DENPASAR WWTP



YOGYAKARTA WWTP



BANJARMASIN WWTP



MEDAN WWTP

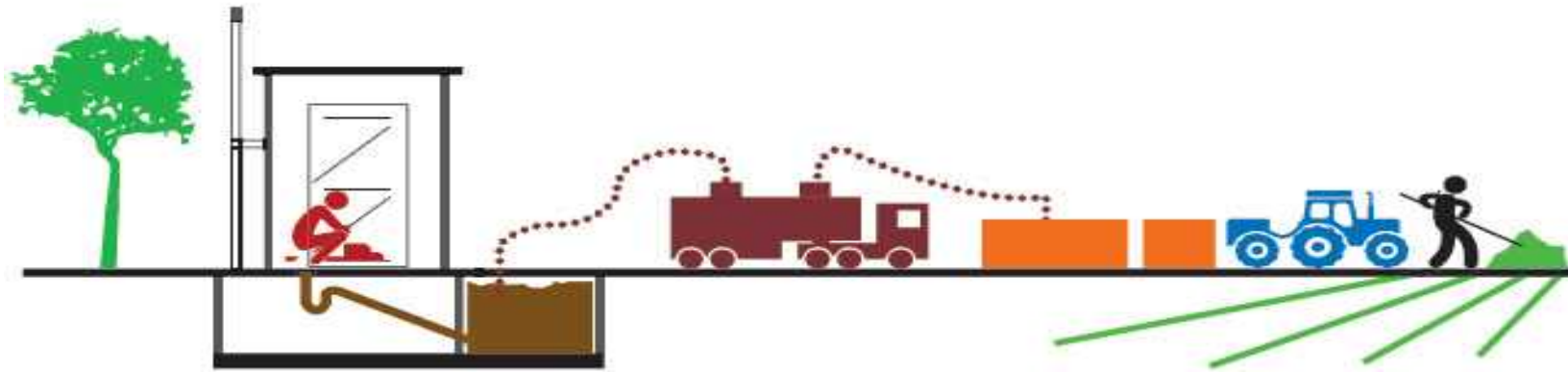


SURAKARTA WWTP



BALIKPAPAN WWTP

FAECAL SLUDGE MANAGEMENT CONCEPT



SEPTIC TANK
USAGE

DESLUDGING

TRANSPORTING

PROCESSING

REUSE

FAECAL SLUDGE MANAGEMENT CONTRIBUTION TO UNIVERSAL ACCESS

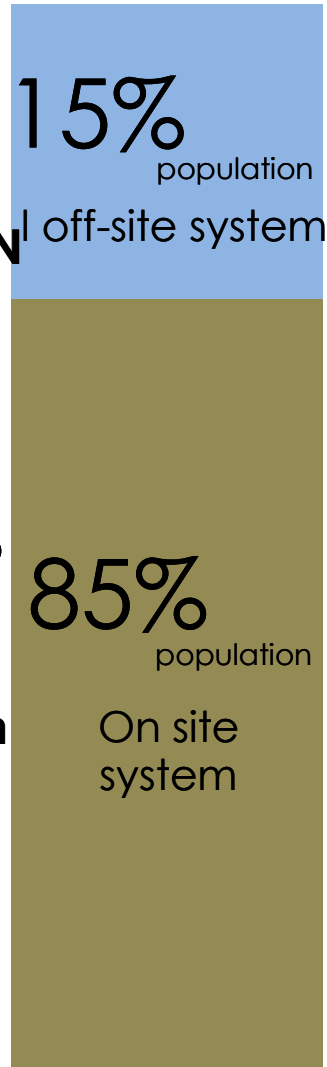
Faecal sludge management still relevant in Indonesia

85% citizens Use septic tanks & the likes

SANITATION ACCESS

100%

Population



Improve quality & benefit of on site system

Facilitate adequate on site system

Help to achieve other targets (100% water & 0% slum):

- Improve quality of raw water
- Providing basic services for slums

COMMUNITY-BASED SANITATION INFRASTRUCTURE



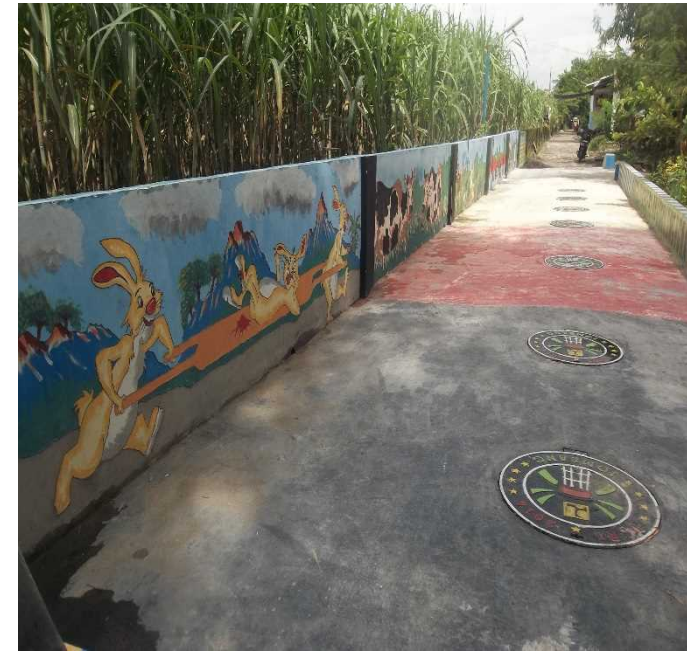
- Providing high quality, sustainable, and environmentally friendly sanitation infrastructure, following the needs of the community
- Focus on improving community awareness on sanitation and promoting clean and healthy living behavior



INNOVATIONS ON COMMUNITY-BASED SANITATION INFRASTRUCTURE

INNOVATIONS :

1. Utilization of road body as location of WWTP
2. Utilization of top part of WWTP as a public facility (meeting hall, sports & games facilities, etc.)
3. The management of stool methane gas as an energy source
4. Utilization of recycle goods (mineral water bottle, bottle cap) as filter media in treatment plant
5. Processed WWTP effluent is used as organic liquid fertilizer



INNOVATIONS ON COMMUNITY-BASED SANITATION INFRASTRUCTURE



**COMMUNITY
INNOVATIONS**

**Manhole construction
by the community**

**Utilization of used
bottles as WWTP filter
media**



**Business opportunities
for the society**



Thank You

