

# A turtle's journey towards 2030 Targets

2030



2015

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# Turtle's memories

2008

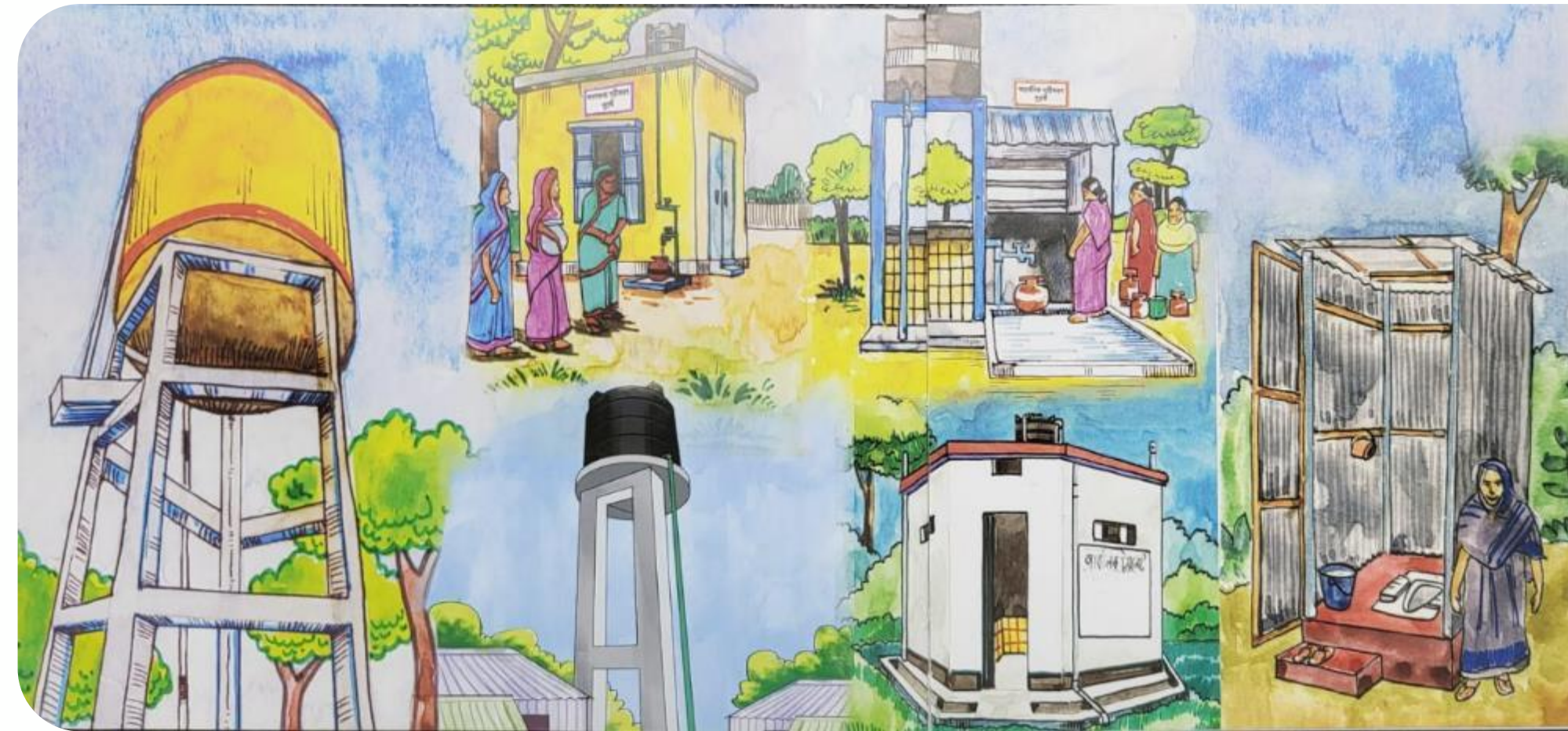
2



1900



# Inevitable changes!



গ্রামীণ  
পানি  
সরবরাহ  
ও  
স্যানিটেশন

2030



অর্থনৈতিক উপযোগিতা সম্পন্ন সড়ক নির্মাণ করা হলে তা উচ্চ প্রযুক্তি অর্জন ত্বরান্বিত করবে। অর্জিত প্রযুক্তির অর্থে পরবর্তী অগ্রাধিকারপ্রাপ্ত সড়কসমূহ নির্মাণ করা সম্ভব হবে। এ কৌশল 'আমার গ্রাম-আমার শহর' অঙ্গীকার বাস্তবায়নে আরো বেশি অর্থ যোগানে সহায়ক হবে।

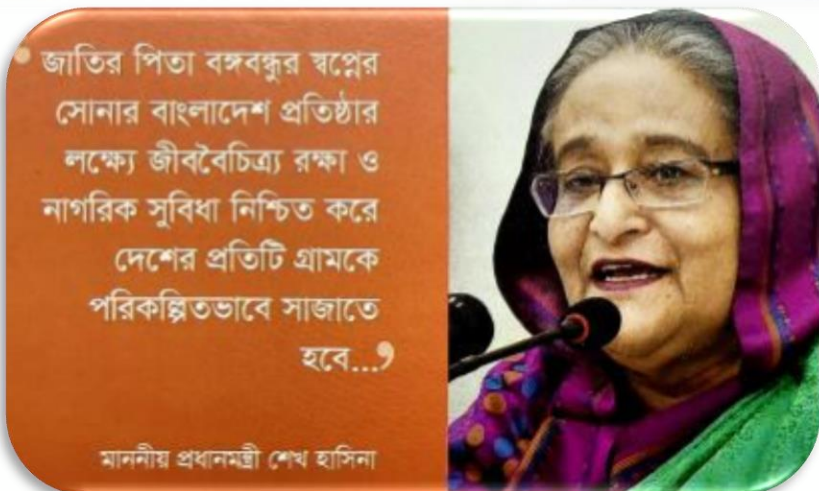


A Twin Pit Toilet Model



গ্রোথ সেন্টার/ হাটবাজারভিত্তিক বর্জ্য ব্যবস্থাপনা

গ্রোথ সেন্টার/ হাটবাজারভিত্তিক বর্জ্য ব্যবস্থাপনা



জাতির পিতা বঙ্গবন্ধুর স্বপ্নের সোনার বাংলাদেশ প্রতিষ্ঠার লক্ষ্যে জীববৈচিত্র্য রক্ষা ও নাগরিক সুবিধা নিশ্চিত করে দেশের প্রতিটি গ্রামকে পরিকল্পিতভাবে সাজাতে হবে...

মাননীয় প্রধানমন্ত্রী শেখ হাসিনা

2018



গ্রোথ সেন্টার  
ও  
হাটবাজার  
উন্নয়ন



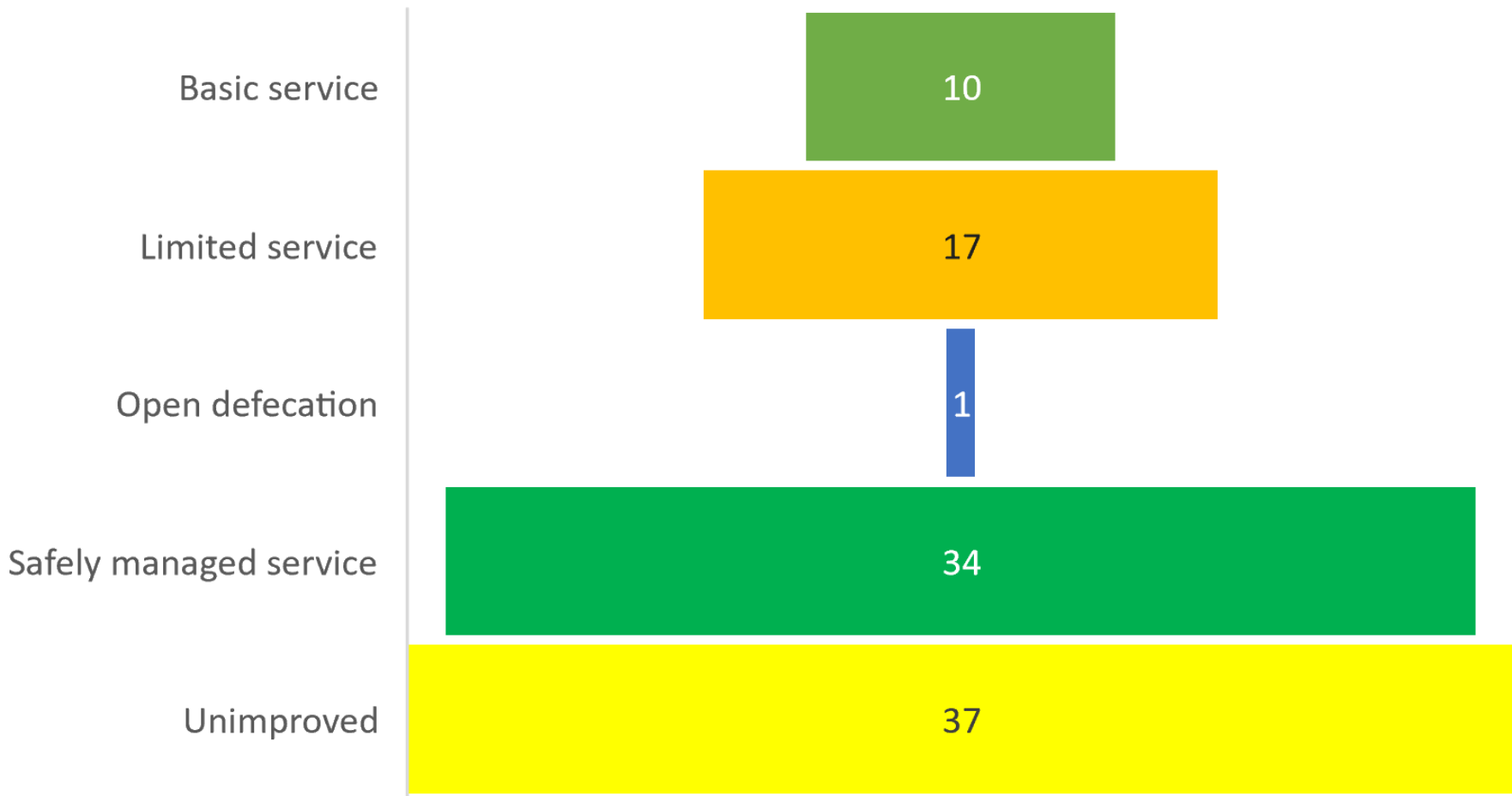


# A learner turtle!

- Open defecation was not acute problem
- Shared toilet (Limited service) is the reality
- Poor people (lowest quintal) needs to move to Basic level
- Policy landscaping needs revision: Approach, Technology, Data management

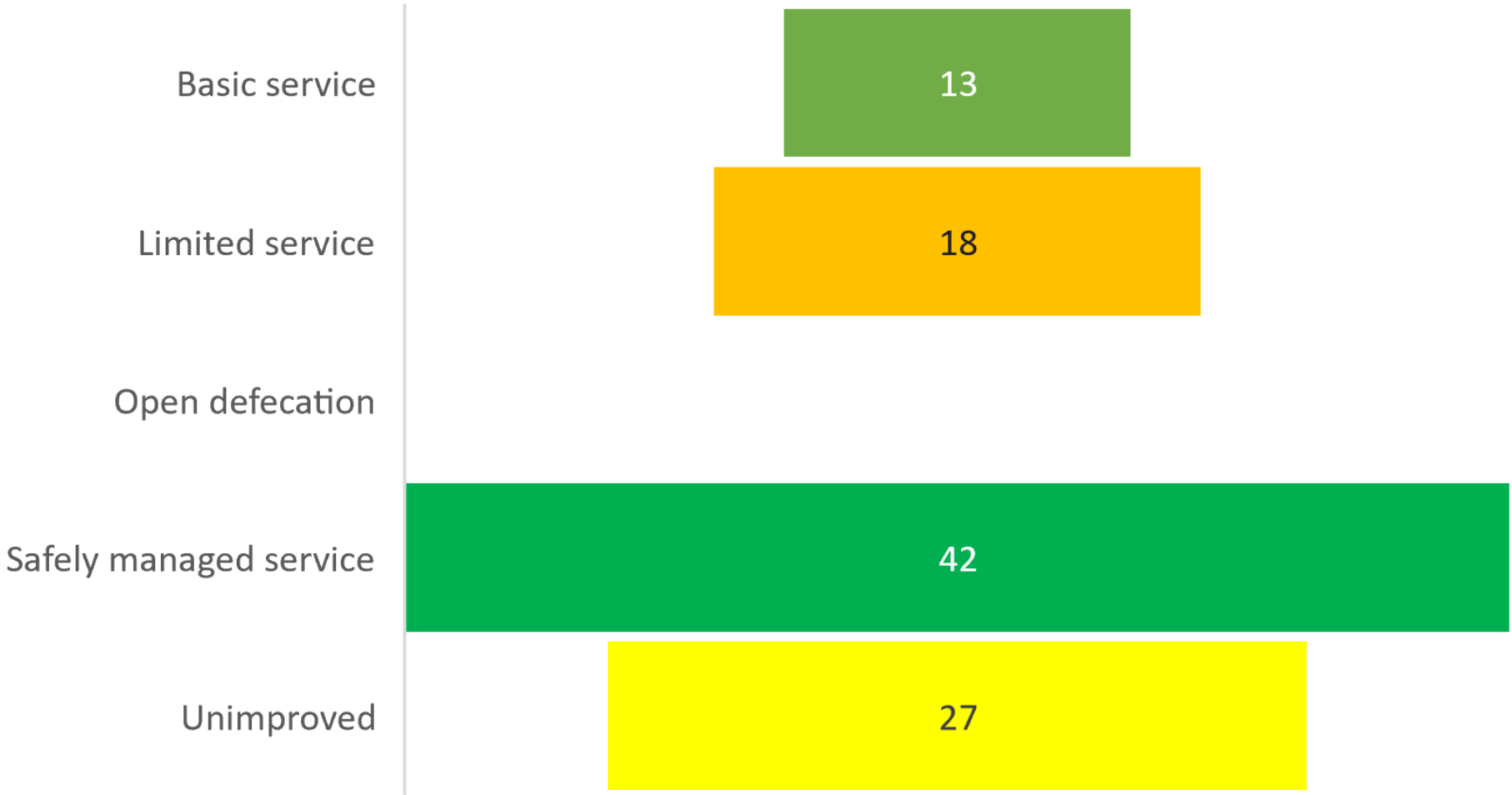


Rural sanitation: 2015



Source: JMP 2021

Rural Sanitation: 2020



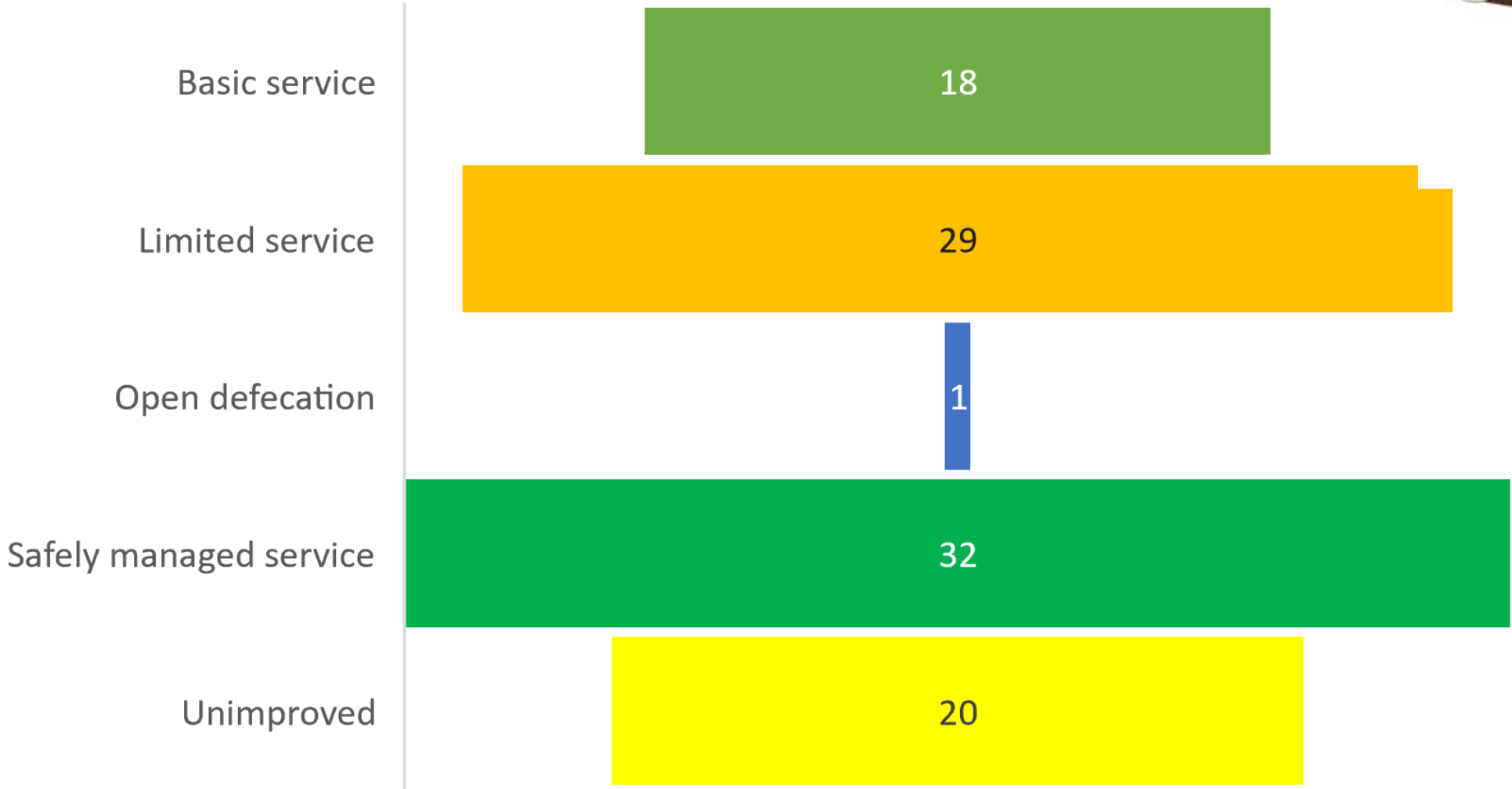
Source: JMP 2021

# A learner turtle!

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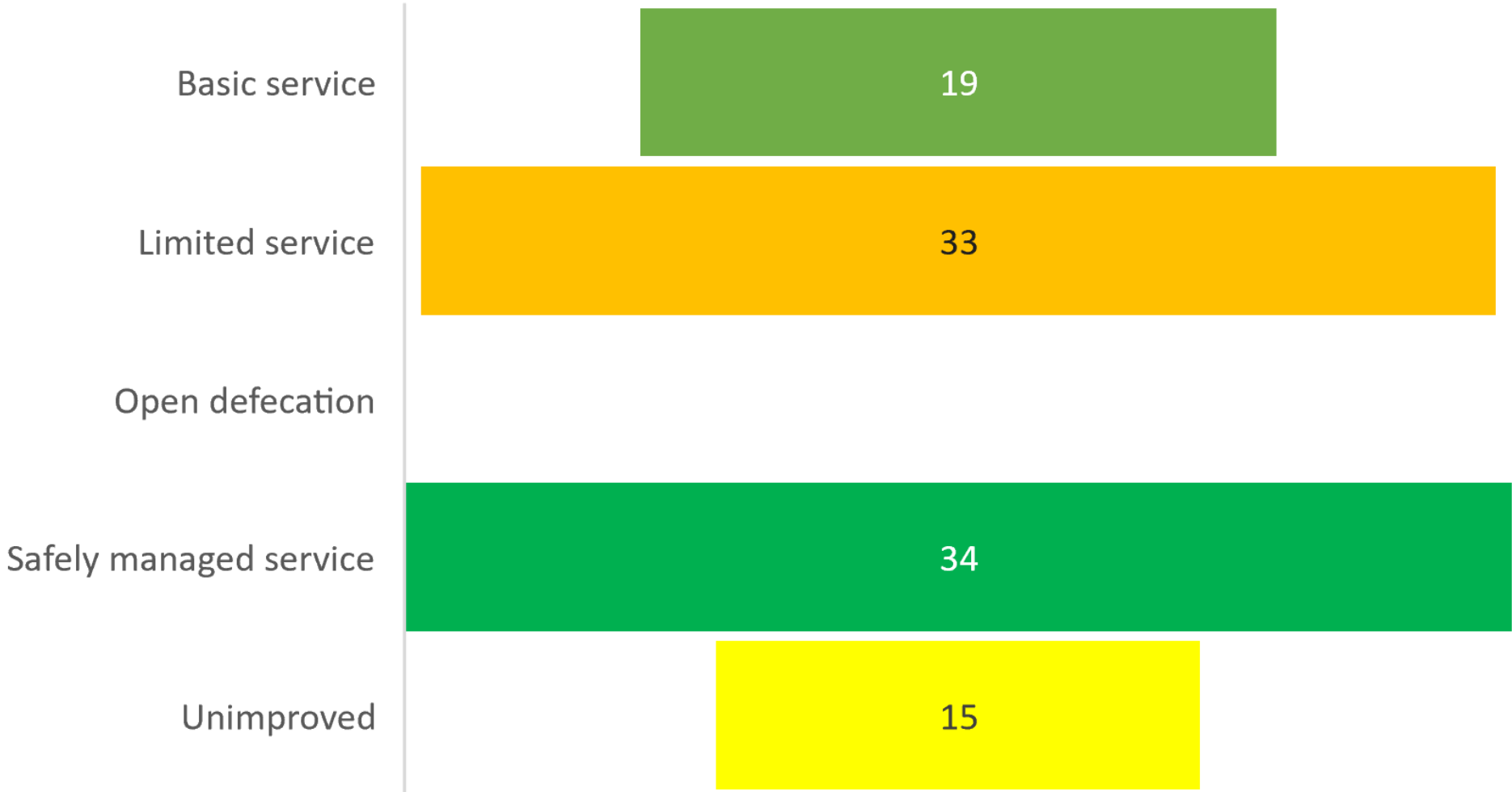


Urban Sanitation: 2015



Source: JMP 2021

Urban Sanitation: 2020



Source: JMP 2021

# Turtle's Ten commandants!

2025

150+ FSTPs will be  
in operation

National  
Dashboard for  
SDG6.2

Expansion of  
urban facilities

CWIS framework

Integrated Waste  
Management

Poor people gets  
Basic Sanitation

National WASH  
Accounts

Graduation as  
Middle-Income  
Country

Resource  
mobilization

Rural contextual  
technologies



2021

# Turtle is steadily moving!



150+ FSTPs will be in operation

National Dashboard for SDG6.2

CWIS framework

Integrated Waste Management

National WASH Accounts

Graduation as Middle-Income Country

Resource mobilization

Rural contextual technologies

Poor people gets Basic Sanitation








# Turtle is steadily moving!

CWIS framework

Rural= Upazilla + Union

Urban= Municipality /  
Pourashava



-  Union
-  Upazilla
-  Municipality /  
Pourashava
-  Upazilla  
Parishad / HQ
-  Municipality /  
Pourashava HQ



# Turtle is steadily moving!

National  
Dashboard for  
SDG6.2



Department of Public Health Engineering

Ministry of Local Government, Rural Development & Cooperatives  
Government of The People's Republic of Bangladesh

## Faecal Sludge & Solid Waste Management Status



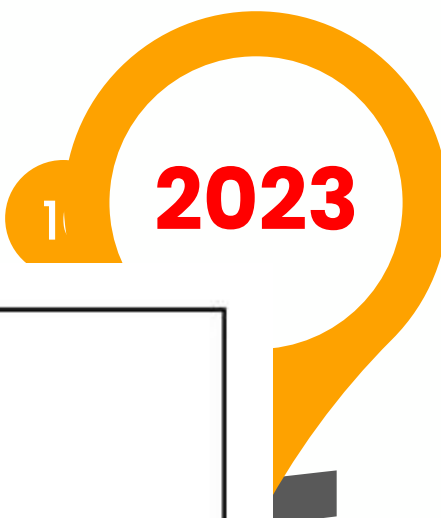
2021

2030

<http://sanboard.gov.bd/>



# Turtle is steadily moving!



150+ FSTPs will be in operation

Integrated Waste Management

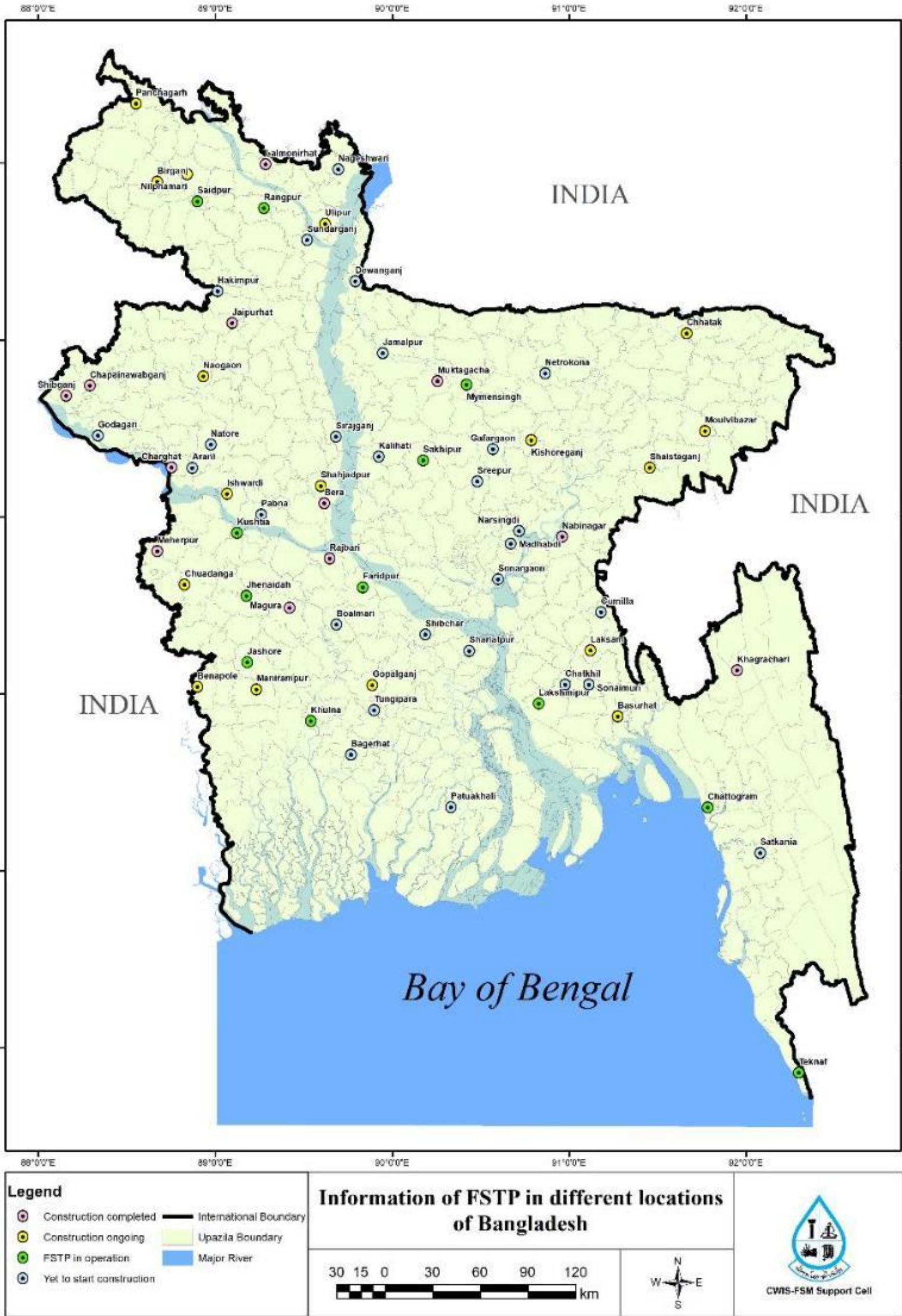
Unit cost: About 0.8m-1.9m USD including 3yr of O&M



Unit cost: About 20k USD



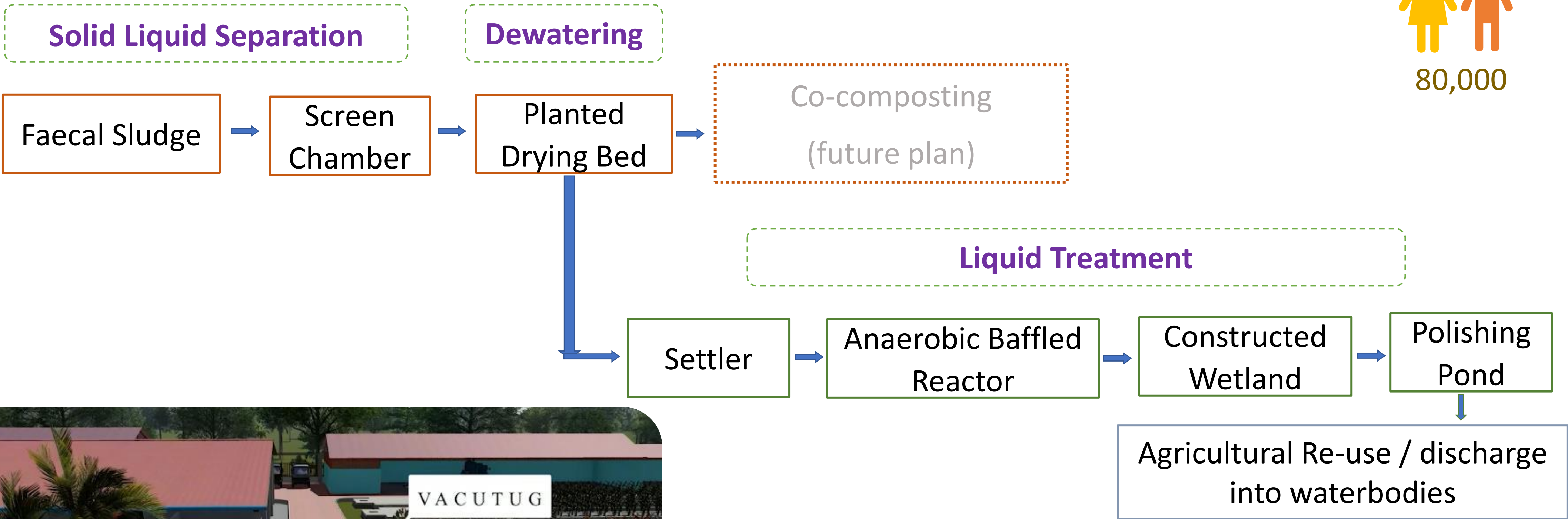
Unit cost: About 600 USD





# Faecal Sludge Treatment Process

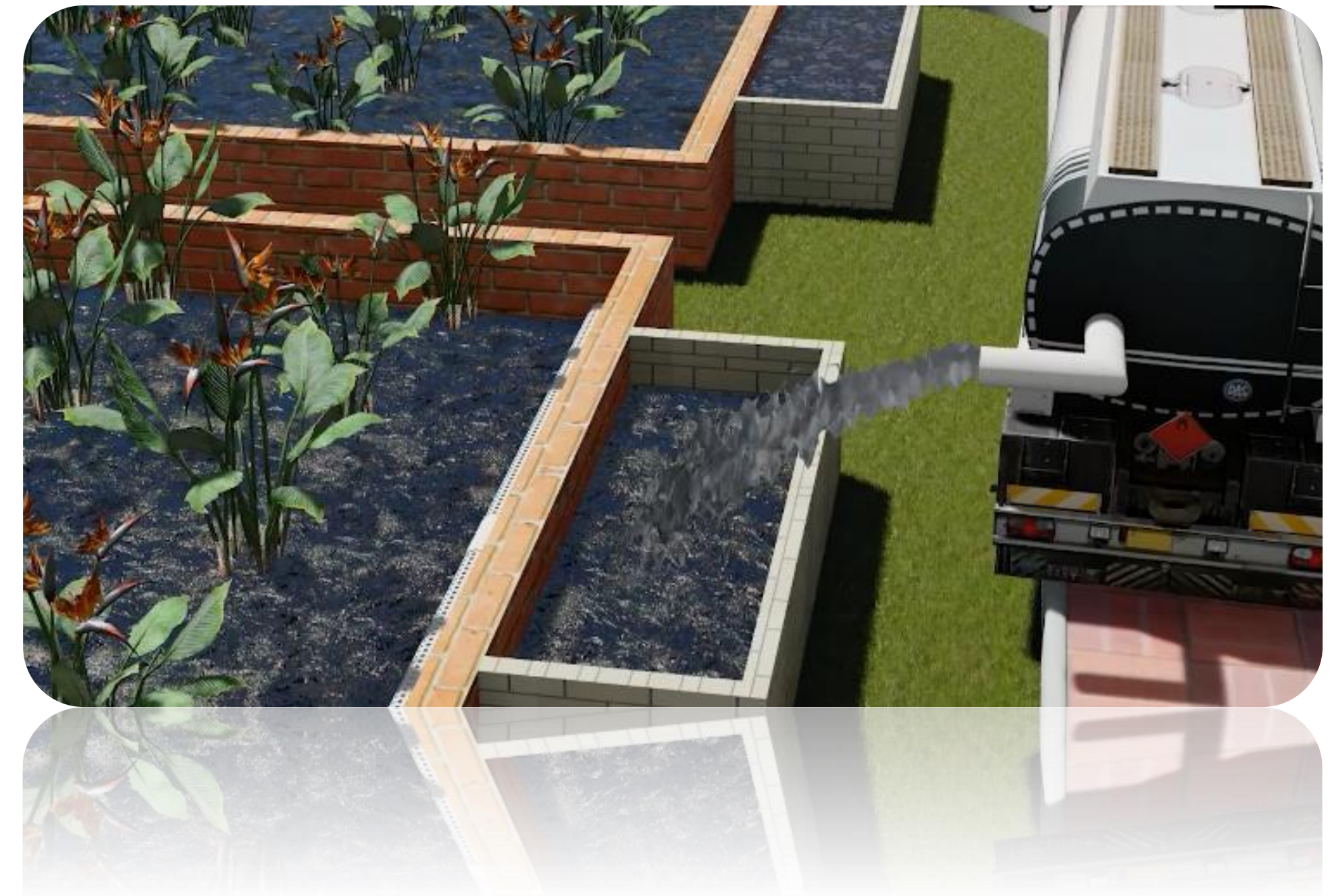
  
80,000



ITEM	COSTING (USD)
FAECAL SLUDGE AND WASTEWATER TREATMENT PLANT CONSTRUCTION	150,077
PLANTED DRYING BED	78,340
ABR & CONSTRUCTED WETLAND	63,031
POLISHING POND	8,705



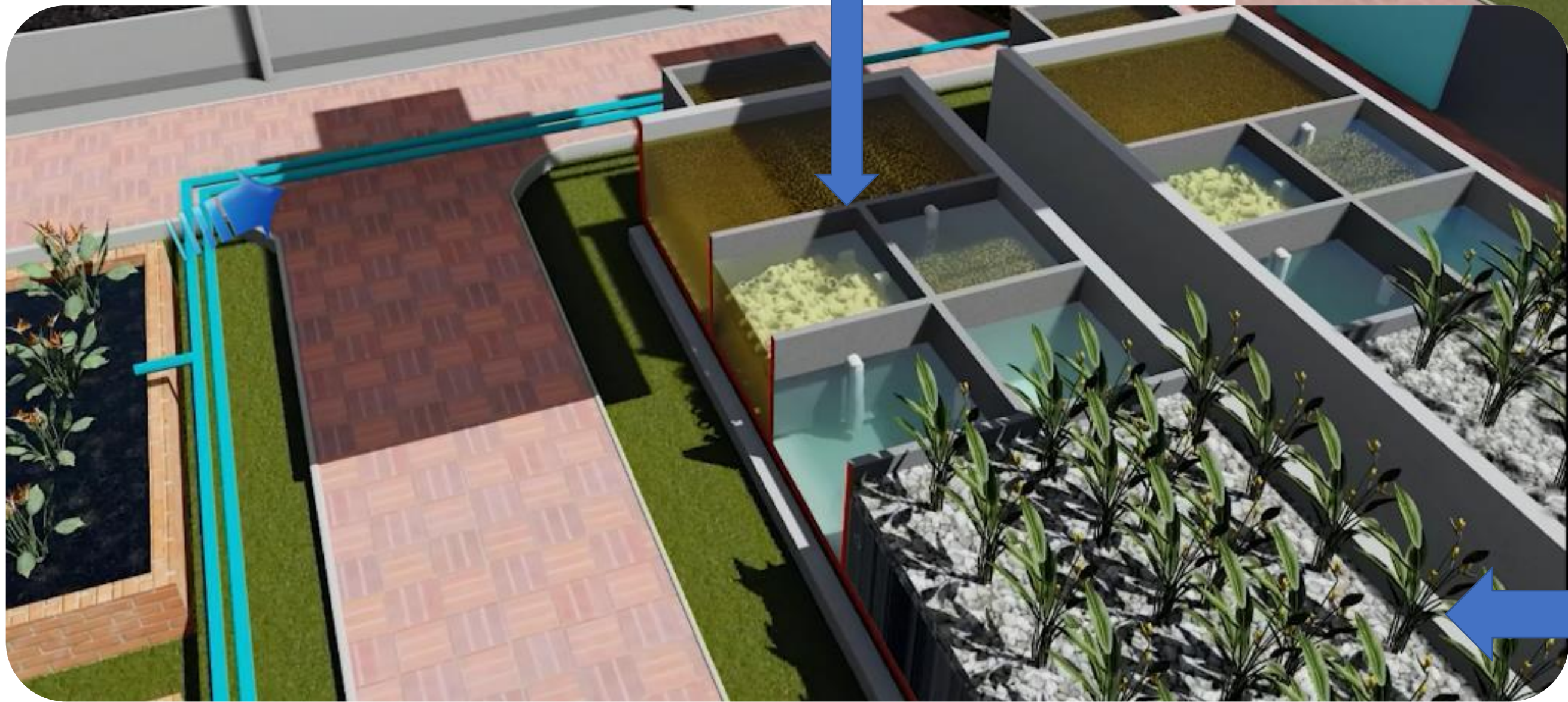
# Faecal sludge discharge at planted drying bed





# ABR and Constructed Wetland

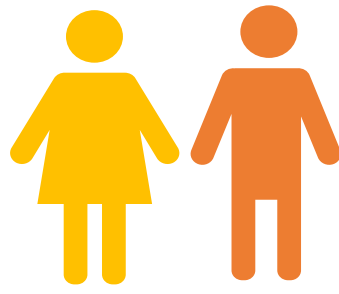
Anaerobic Baffle Reactor



Constructed wetland



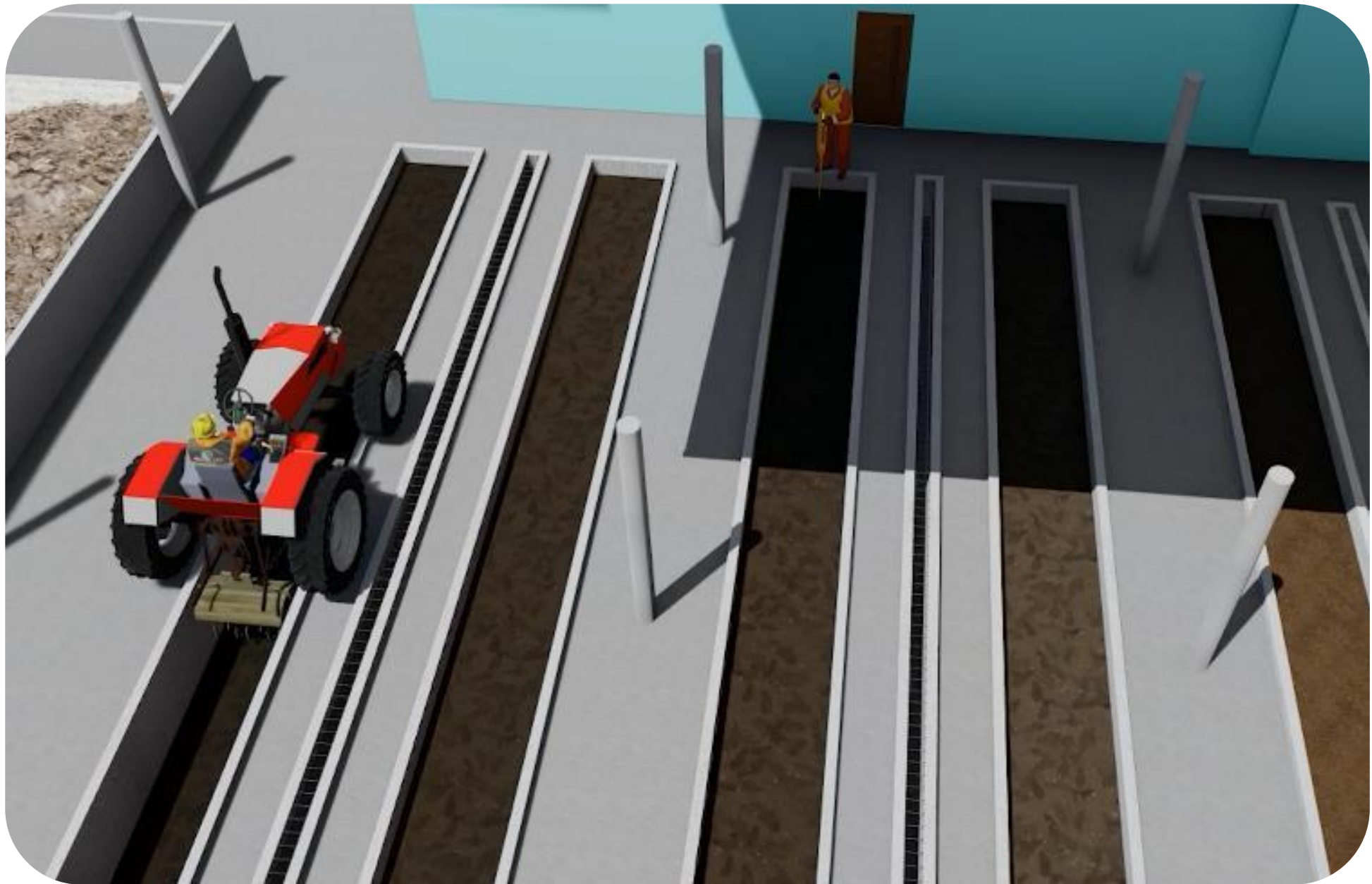
# Non Combustible Waste (Organic Solid Waste) Treatment Process

  
80,000



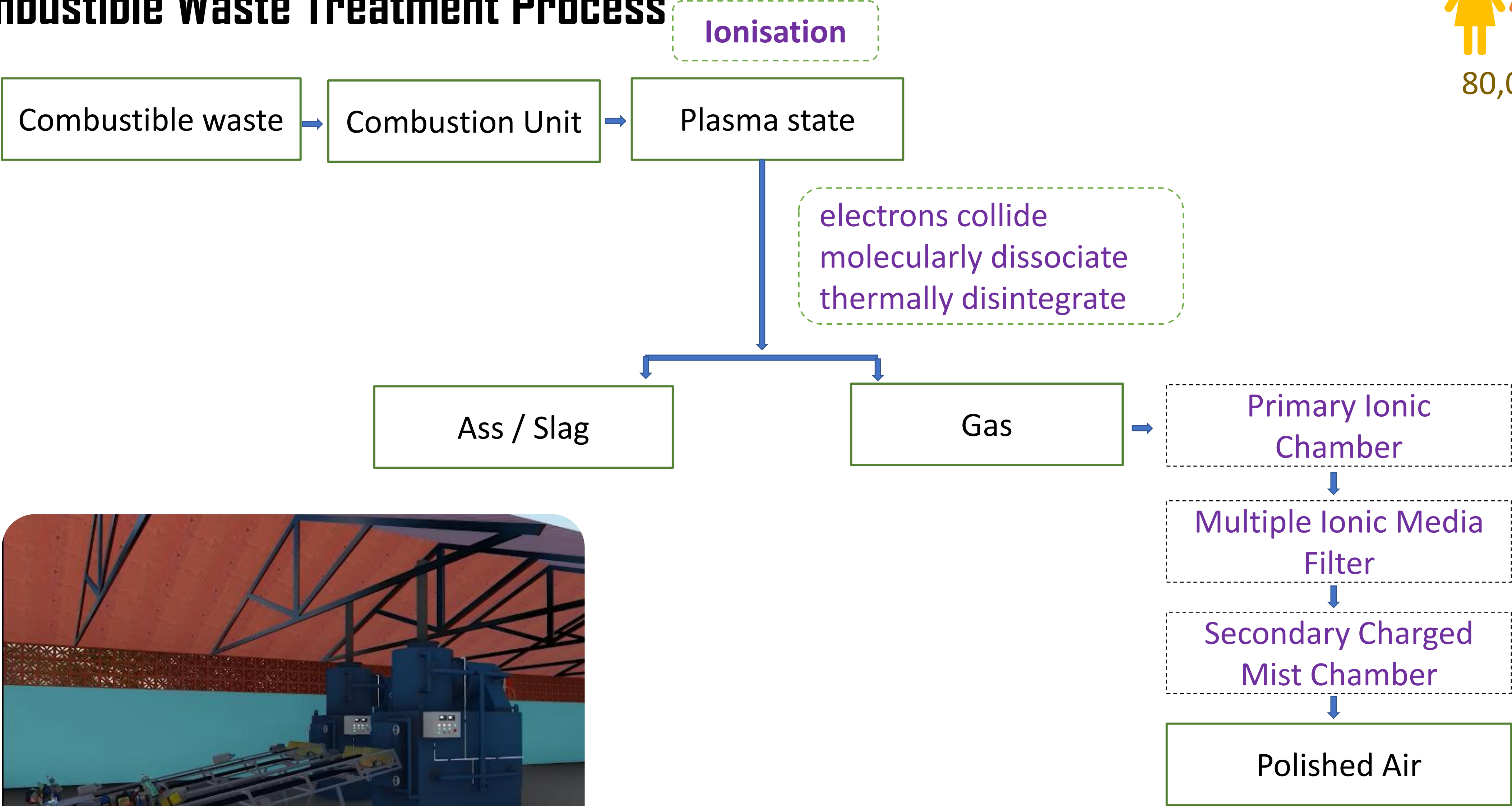
Post maturation chamber  
following WHO’s safety  
guideline

ITEM	COSTING (USD)
NON COMBUSTABLE (ORGANIC SOLID WASTE) TREATMENT PLANT CONSTRUCTION	241,982
COMPOST SHED & PARTITION WALL	132,224
WASTE SEPERATION ZONE	18,096
COMPOST BED & DRAINAGE	31,422
LEACHATE TANK	12,387
OFFICE ROOM	4,081
STORE ROOM	3,163
POST MATURATION CHAMBER	40,609



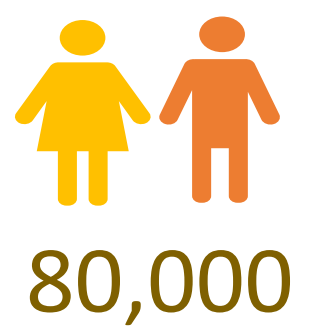


# Combustible Waste Treatment Process





# BoQ : Faecal Sludge & Solid Waste Management



ITEM	COSTING (USD)
<b>1. RETAINING WALL, BOUNDARY WALL &amp; GATE</b>	<b>83,598</b>
<b>2. FAECAL SLUDGE AND WASTEWATER TREATMENT PLANT CONSTRUCTION</b>	
4.1. PLANTED DRYING BED	78,340
4.2 ABR & CONSTRUCTED WETLAND	63,031
4.3 POLISHING POND	8,705
<b>3. SW management plant construction</b>	
3.1 COMPOST SHED & PARTITION WALL	132,224
3.2 WASTE SEPERATION ZONE	18,096
3.3 COMPOST BED & DRAINAGE	31,422
3.4 LEACHATE TANK	12,387
3.5 OFFICE ROOM	4,081
3.6 STORE ROOM	3,163
3.7 POST MATURATION CHAMBER	40,609



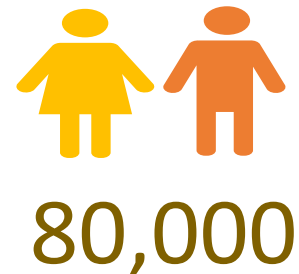
# BoQ : Faecal Sludge & Solid Waste Management



ITEM		COSTING (USD)
4. SITE OFFICE CONSTRUCTION INCLUDING INTERNAL ROAD		
4.1 INTERNAL RCC ROAD		33,729
5. COMBUSTION WASTE SITE CONSTRUCTION		85,924
6. PRODUCTION WELL AND PIPE NETWORK		9,589
7. PARKING SHED, WORKER SHED, SHOWER & UTILITIES		17,259
8. ELECTRICITY FACILITIES		12,222
9. OTHER CIVIL WORKS (dustbin and transfer station)		66,667
10. COMBUSTION MACHINE		1,000,000
11. O&M - 3 YEARS		215,600
TOTAL AMOUNT =		1,916,646



# BoQ : Vehicle & Equipment



Item of facility	Unit	Unit Cost USD	Proposed	Total Cost (USD)
<b>Vehicle &amp; Equipment</b>				
<b>Procurement of FS Emptying and transport Instrument</b>				<b>111,111</b>
a) Vacuum truck(1000 L)	nos	38,889	1.00	38,889
b) Vacuum truck(2000 L)	nos	55,556	1.00	55,556
e) Small size pump & container		16,667	1.00	16,667
<b>Procurement of solid waste transport vehicles and equipment</b>				<b>144,589</b>
a) Dump Truck TIPPER (3T)	nos	44,444	1.00	44,444
b ) excavator	nos	50,556	1.00	50,556
c) Rickshaw Van(Manual)	nos	467	18.00	8,300
d) Hand Trolley	nos	133	18.00	2,400
e) Misc and Sweeping tools	LS	5,556	1.00	5,556
f) Compost Turner and other machineries	nos	11,111	2.00	22,222
h) Generator (10 KV)	nos	11,111	1.00	11,111
<b>TOTAL</b>				<b>255700</b>



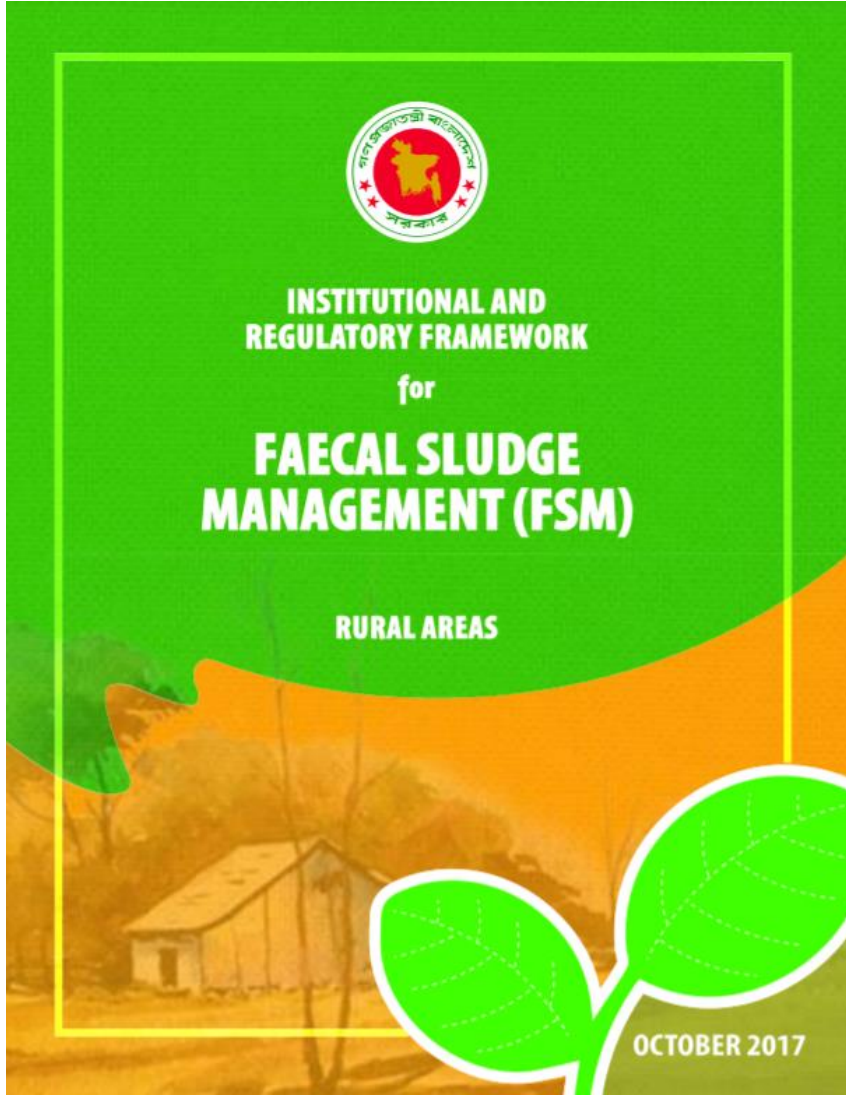
BoQ

Operation & Maintenance

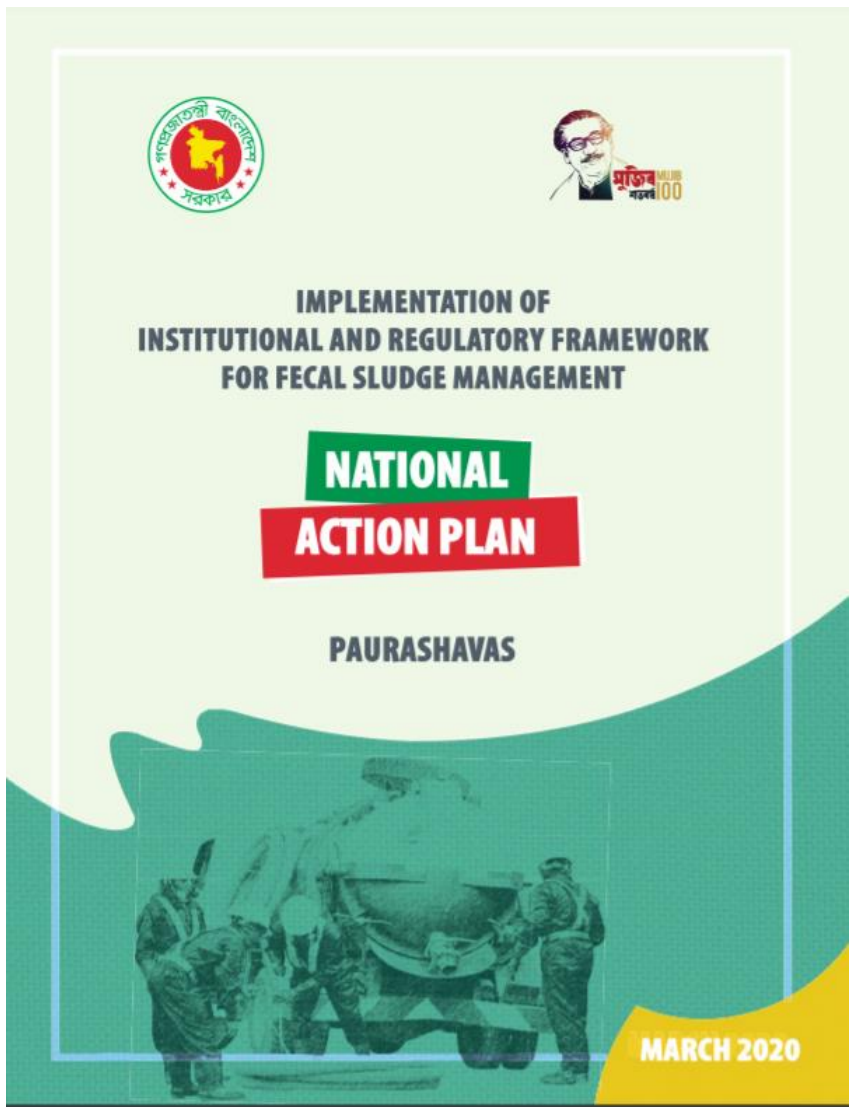
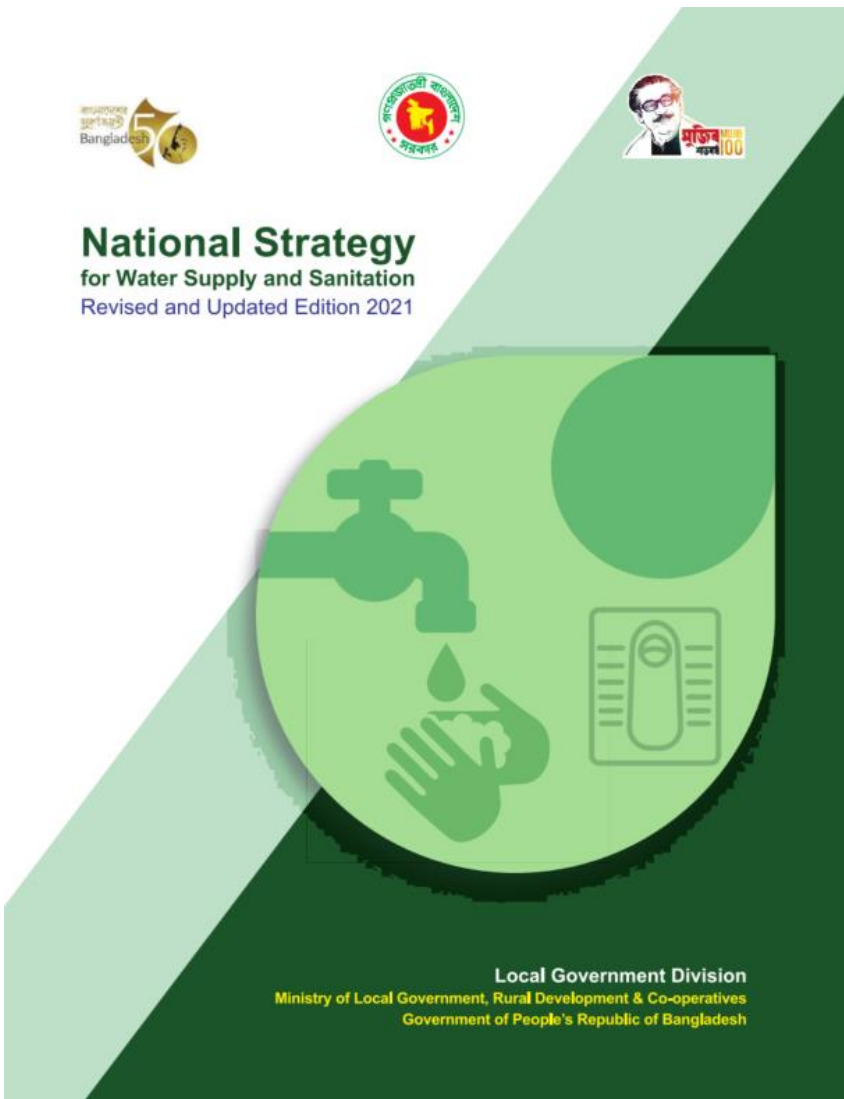
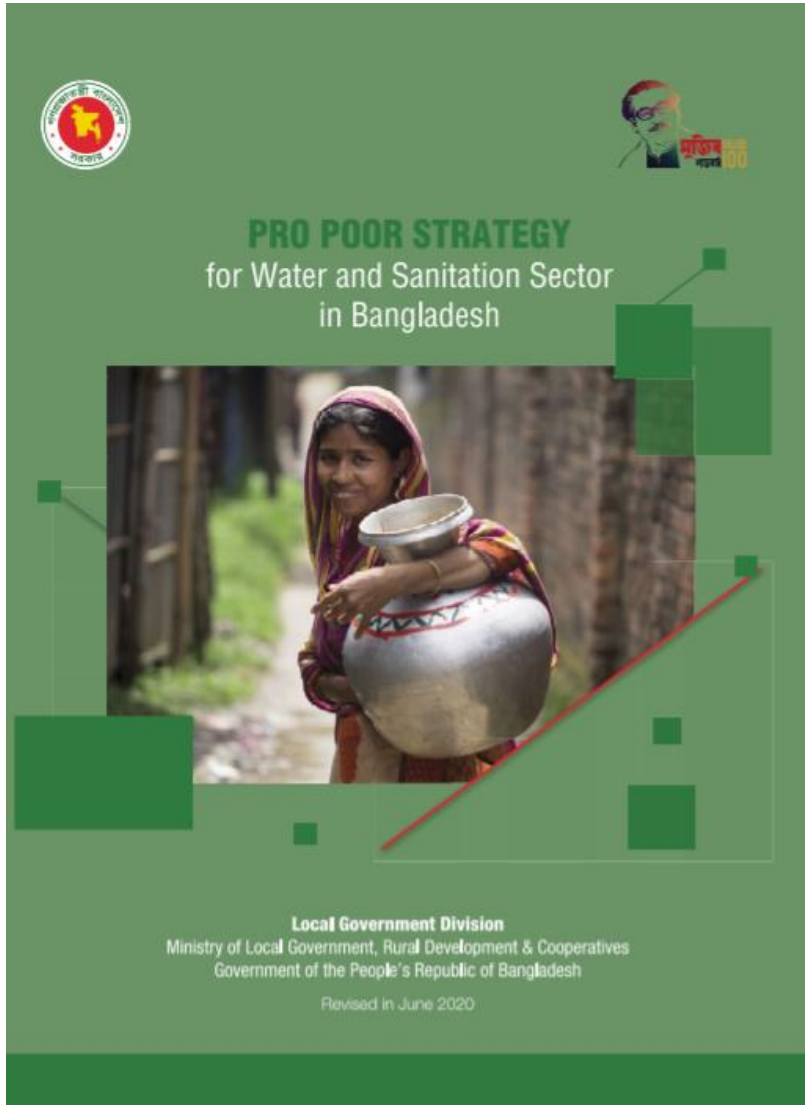


Description of items	Unit Cost /month (USD)	Quantity (Nos.)	Unit Cost (01 Yr)) USD
<b>For SWM    Manpower ( Salary &amp; benefits)</b>			<b>33,067</b>
a) Supervisor	256	12.00	3,067
b) Truck/ equipment Operators (02 persons)	178	24.00	4,267
c) Helper (04 persons)	133	48.00	6,400
d) Van operator (09 persons)	133	108.00	14,400
e) Sweeper/ labours (04 persons)	133	36.00	4,800
f) Office stuff	133	1.00	133
<b>Maintenance of Vehicles / Tools</b>	0		<b>5,333</b>
a) Maintenance of vehicles(Roller, Trucks etc.)	167	24.00	4,000
b) Tools and equipment	111	12.00	1,333
<b>Operating Cost</b>	0		<b>12,667</b>
a) Fuel & Lubricants	167	12.00	2,000
b) Electricity	556	12.00	6,667
c)Repair & Maintenance	111	12.00	1,333
d) Plant maintenance	222	12.00	2,667
<b>For FSM   and STP Manpower (Salary &amp; benefits)</b>	0		<b>7,467</b>
b) Vacutag & Equipment drivers (02 persons)	178	24.00	4,267
d) Sweepers / Labours (02 persons)	133	24.00	3,200
<b>Operating Cost</b>	0		<b>13,333</b>
a) Fuel and Lubricants	444	24.00	10,667
c) Repair & maintenance(plant)	222	12.00	2,667
<b>Sub Total - B</b>			<b>71,867</b>





# Annex







# Thank you!

## CWIS-FSM Support Cell



CWIS-FSM Support Cell

Supported by



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Chief Operating Officer  
CWIS-FSM Support Cell, DPHE  
[aamuyeed@cwisfsm-supportcell.org](mailto:aamuyeed@cwisfsm-supportcell.org)

