

# Faecal Sludge Management and Plastic Waste Management in Rural Areas - Availing treatment & processing facilities of ULBs (FSTPs and MRFs)

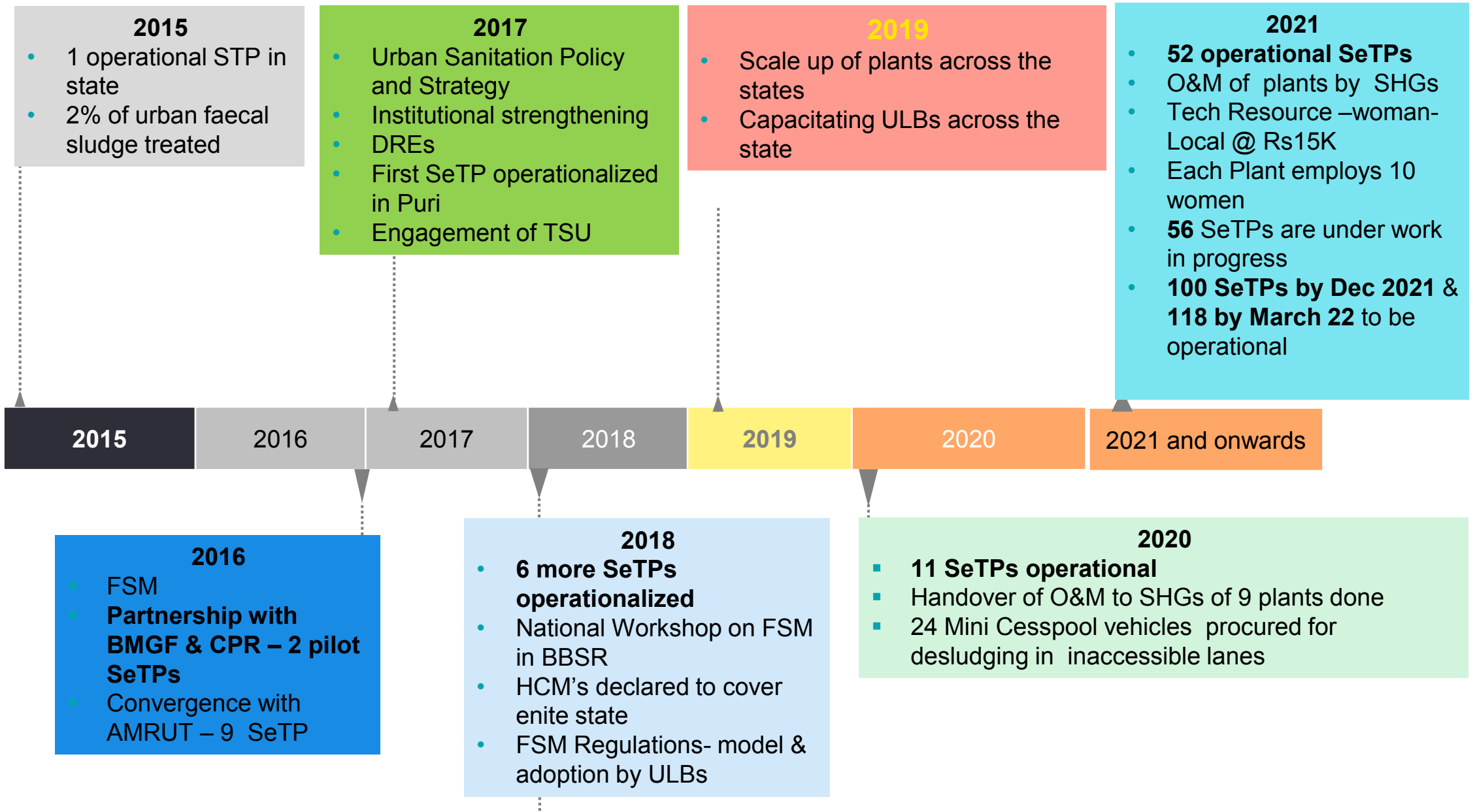
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# Journey of FSSM in Odisha



# Faecal Sludge Management



Desludging trucks for emptying on-site systems and conveying septage to treatment facility

Sludge drying bed-based FSTP



Deep Row Entrenchment



# DREs as an interim solution for safe disposal of faecal sludge

It has already been declared by Ministry of Housing and Urban Affairs that ULBs with less than 20,000 population shall be eligible for ODF++ certification if they have constructed Deep Row Entrenchment



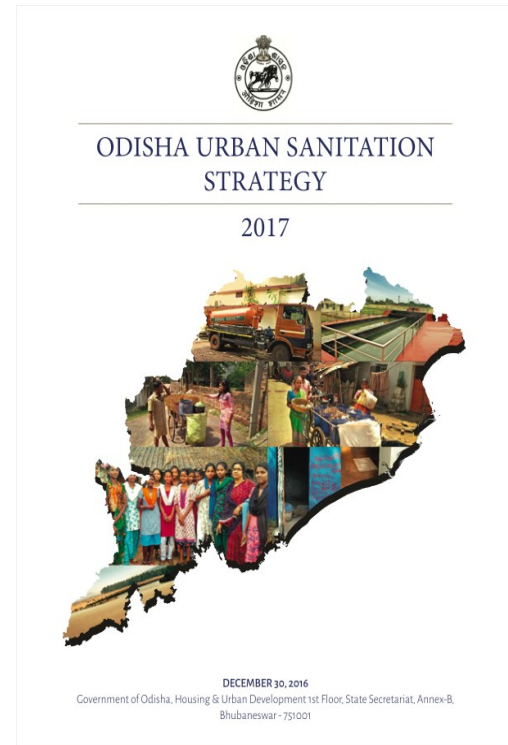
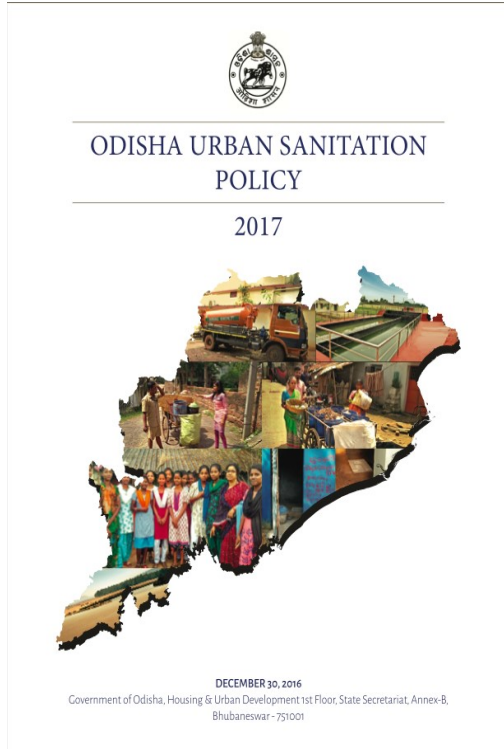
## Site selection criteria

- Site should be above **High Flood Level**
- Site not prone to **water logging**
- **Water table** should be deeper than 15ft
- Minimum distance from surface water body should be 45ft
- Soil type should be **porous**
- Site terrain should be **flat**
- Minimum distance from **nearest habitation** should be 200 m
- Minimum distance from **town centre** should be more than 15 kms
- All **weather road** should be present for accessibility of cesspool emptier vehicles

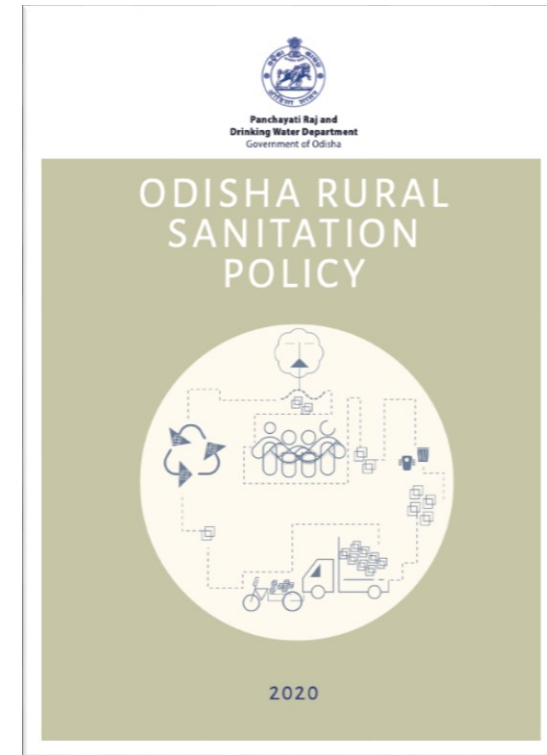
- ▶ Deep row entrenchment a tried and tested method for safe disposal of faecal sludge and septage
- ▶ Interim low cost solution
- ▶ Accepted Practice in Malaysia, South Africa, Sub-Saharan Africa, Thailand, Indonesia
- ▶ Periodical testing of ground water to ensure no contamination

# Policy Framework for FSSM interventions

## Urban Odisha

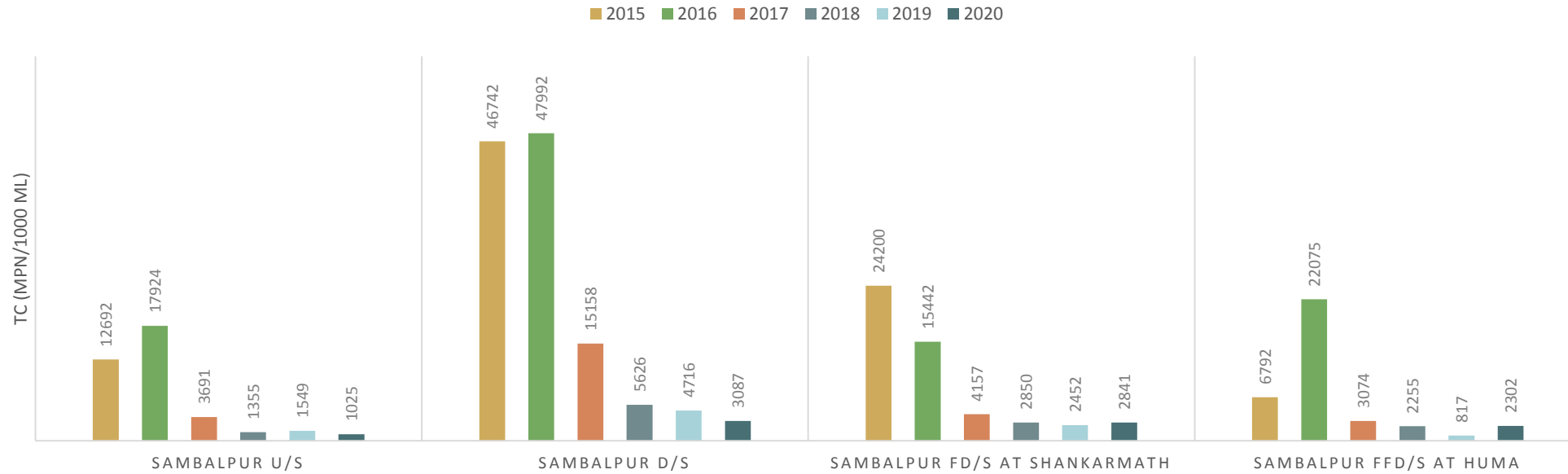


## Rural Odisha

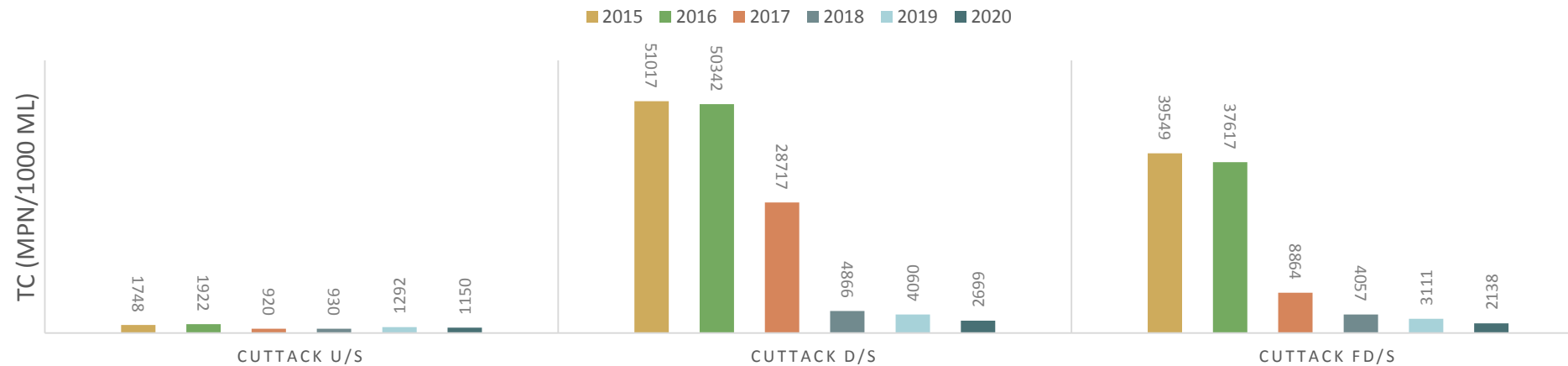


# Impact created on River Pollution - Reduction of TC across the years – Sambalpur and Cuttack

## MAHANADI RIVER SYSTEM



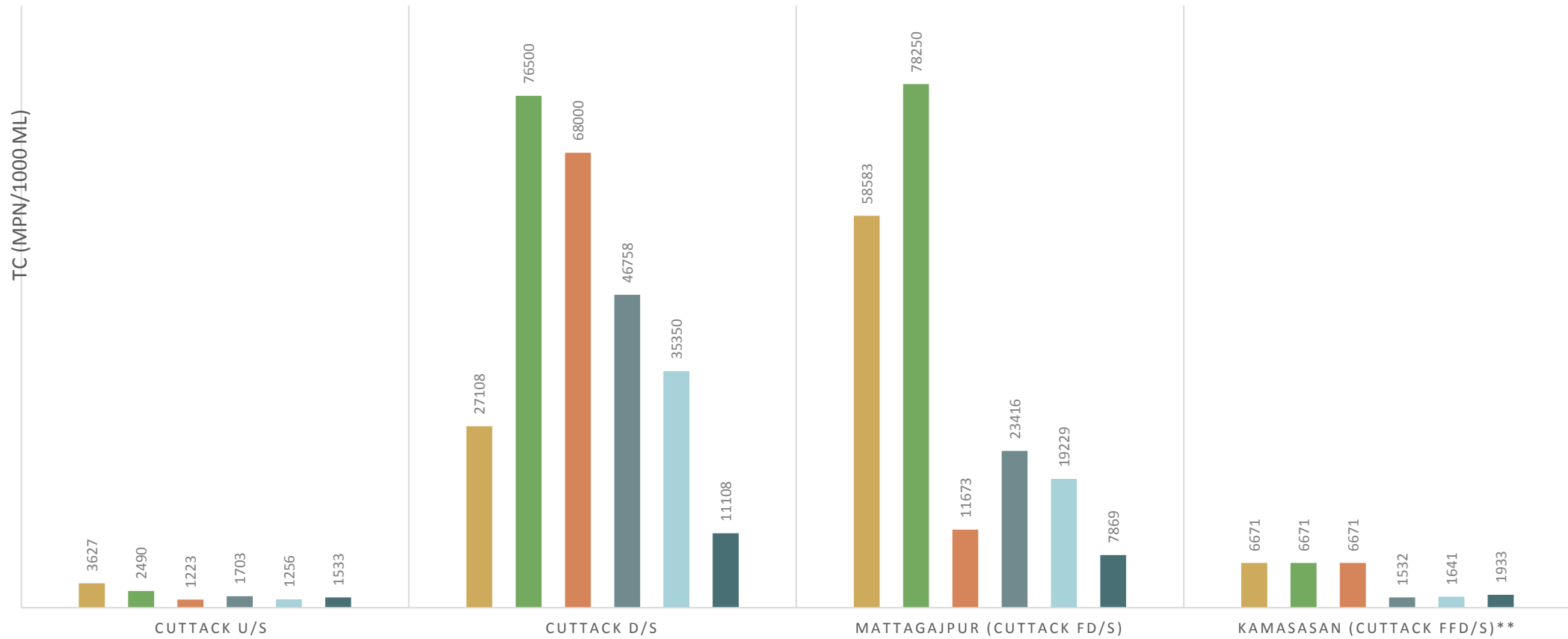
## MAHANADI RIVER



# Impact created on River Pollution - Reduction of TC across the years - Cuttack

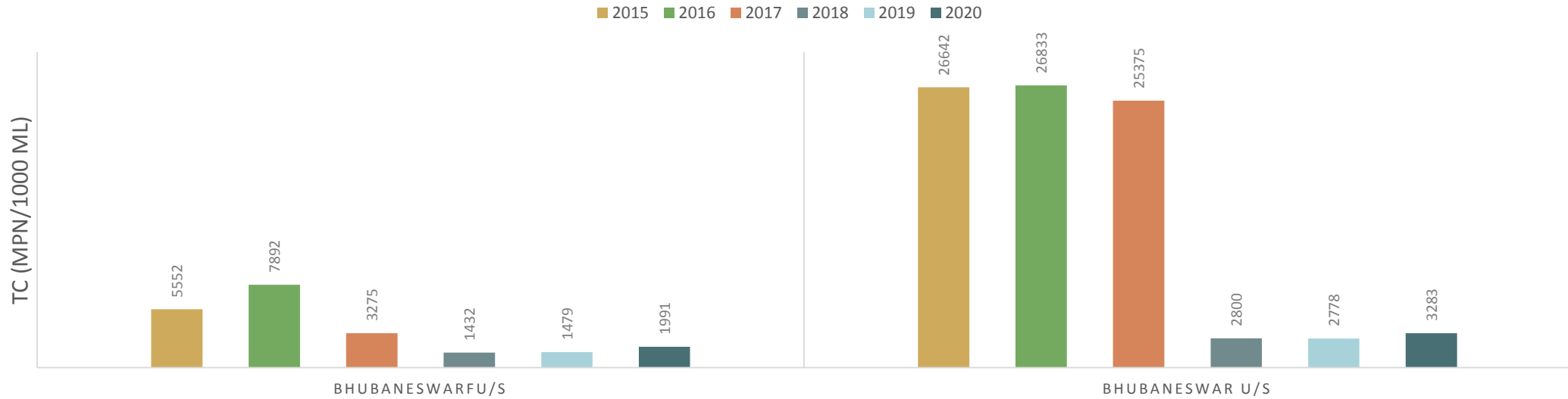
## KATHAJODI RIVER

2015 2016 2017 2018 2019 2020

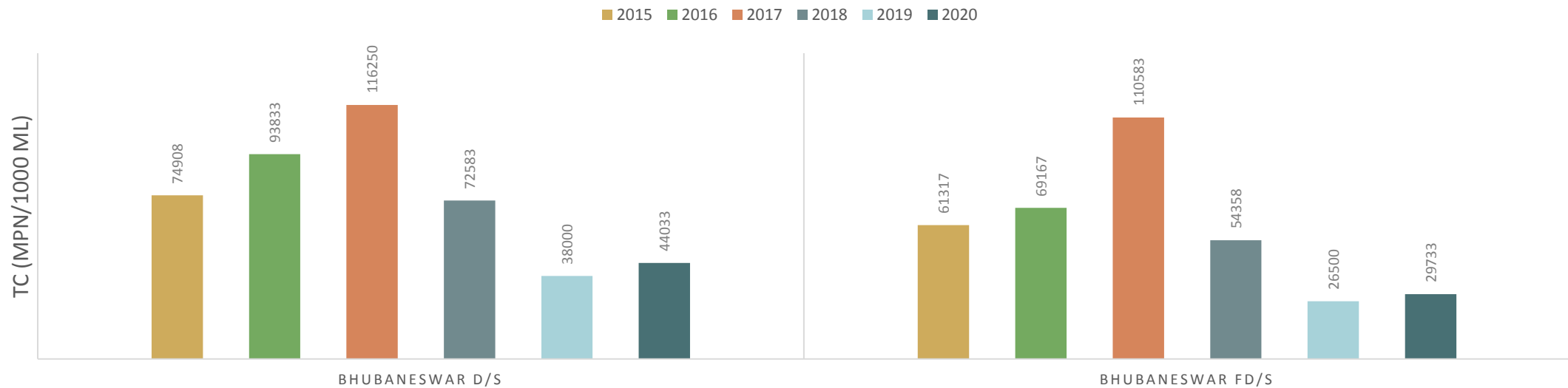


# Impact created on River Pollution - Reduction of TC across the years - Bhubaneswar

## KUAKHAI RIVER



## DAYA RIVER

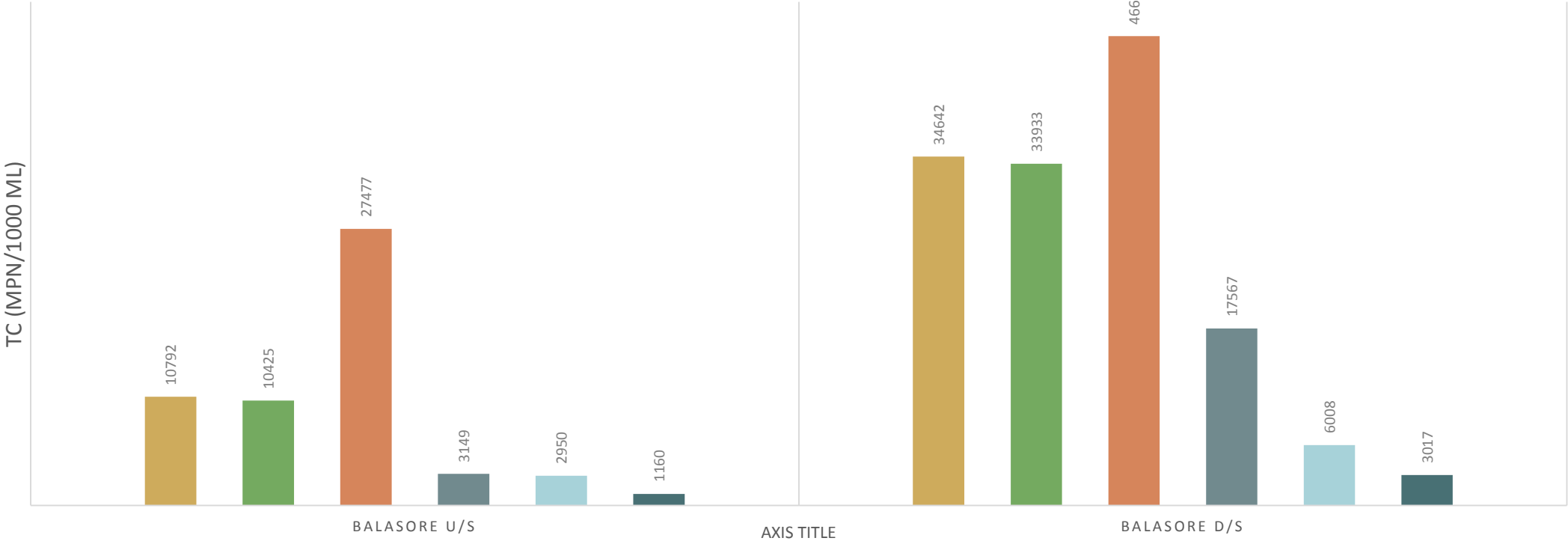




# Impact created on River Pollution - Reduction of TC across the years

## BUDHABALANGA RIVER

2015 2016 2017 2018 2019 2020

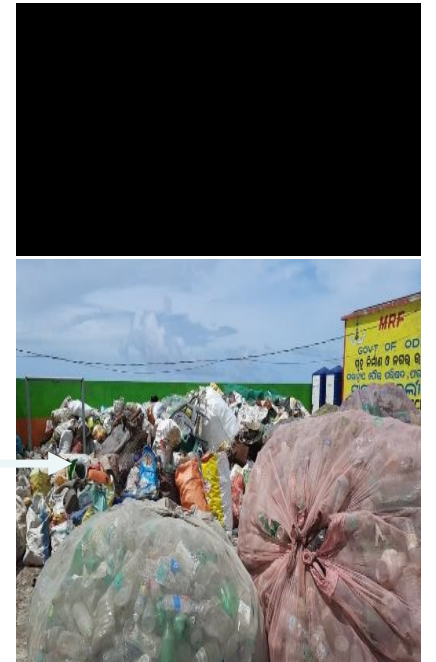
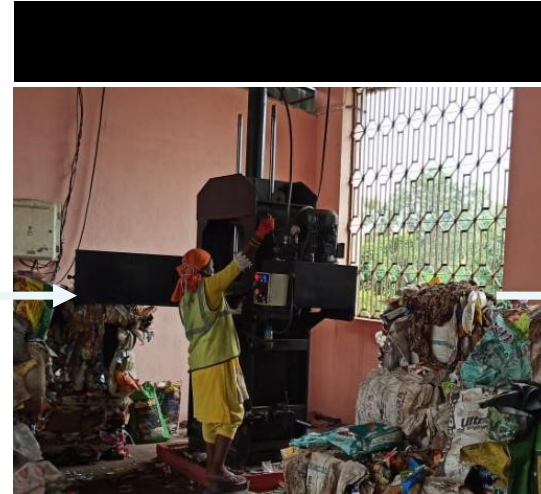


# Plastic Waste Management

Collection and conveyance of segregated plastic waste by Battery Operated Vehicles to Wealth Centres



Processing of solid waste at Wealth Centres



# Objective of Urban-Rural Partnership to extend FSSM and PWM services to rural areas

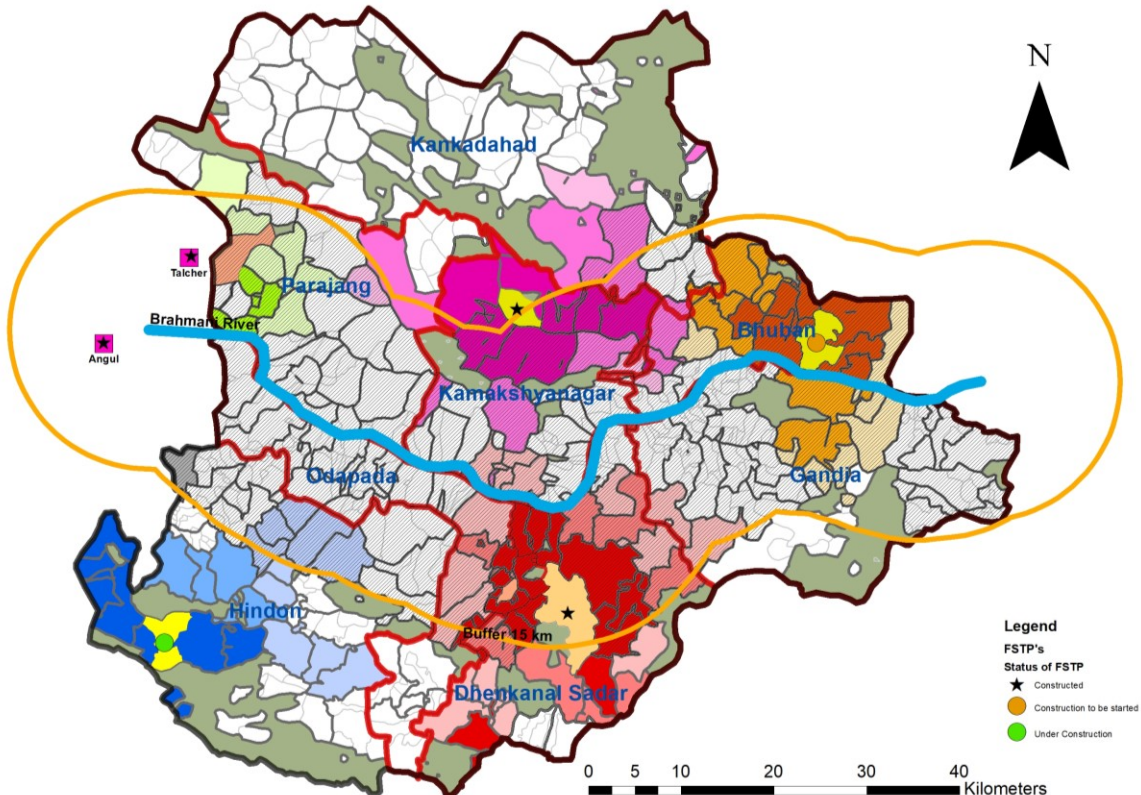
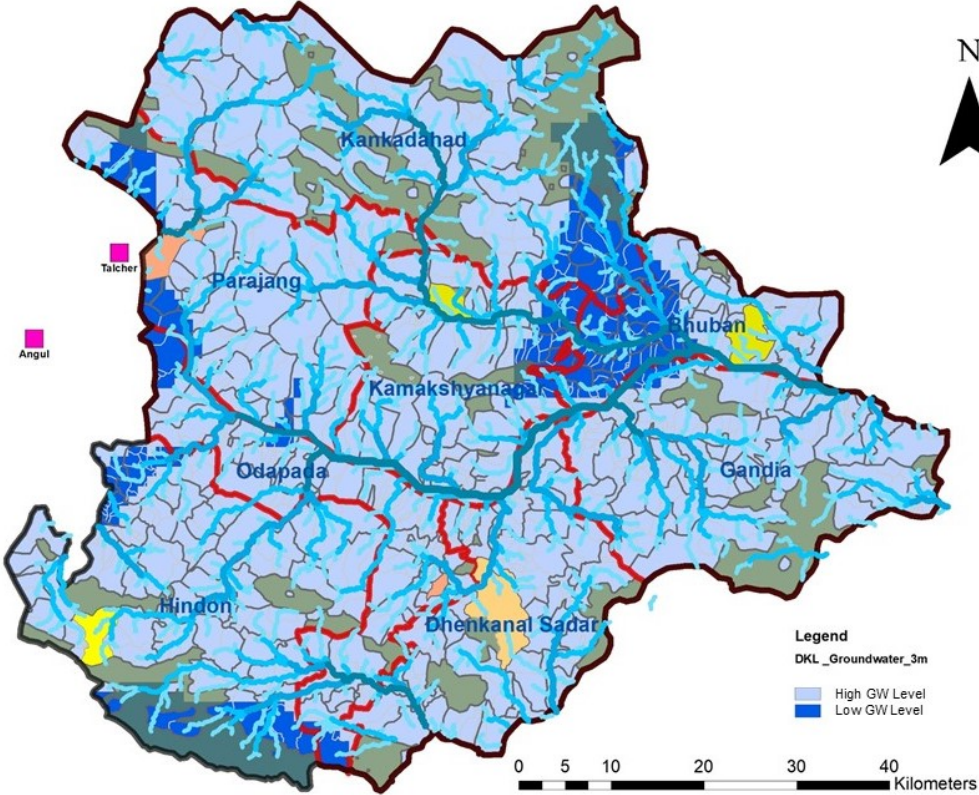
To formalize the efforts to ensure district-wide sanitation by demonstrating the urban-rural convergence of FSSM and PWM services in seven identified districts for safe management

and further mainstreaming across the state



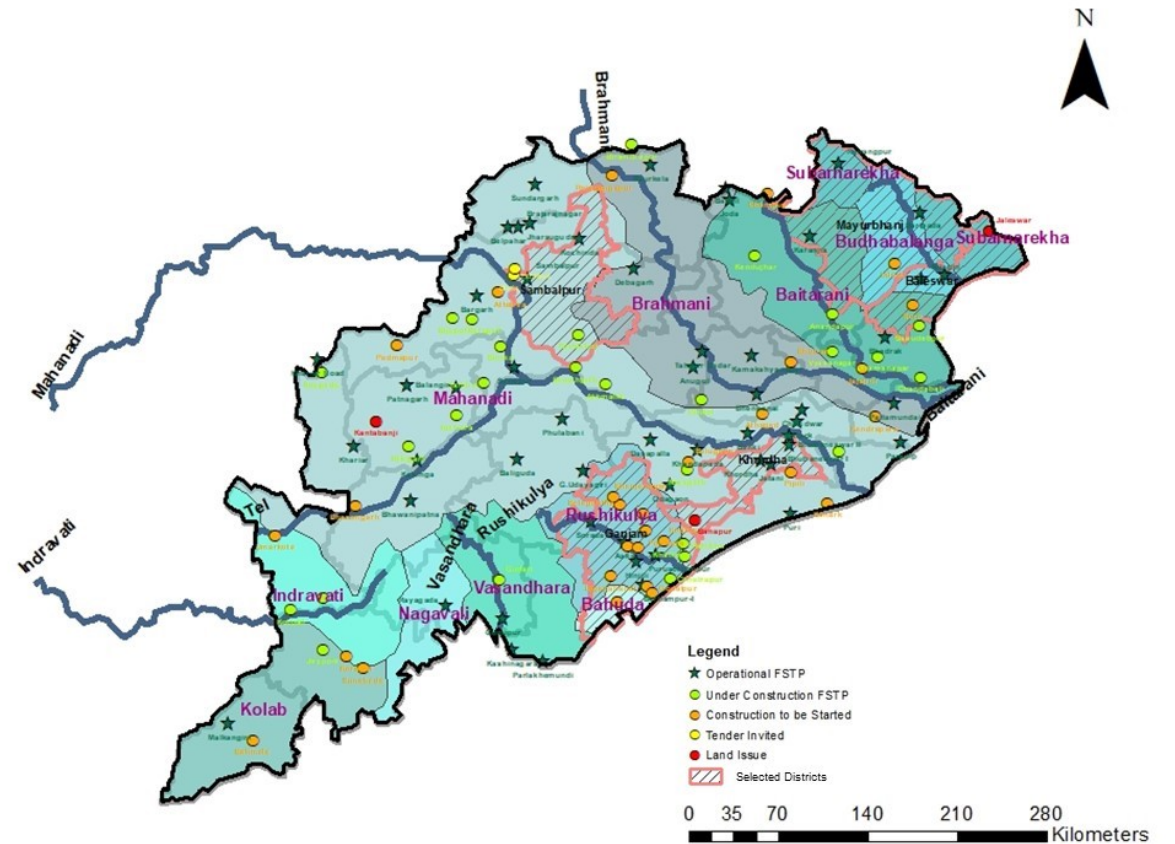
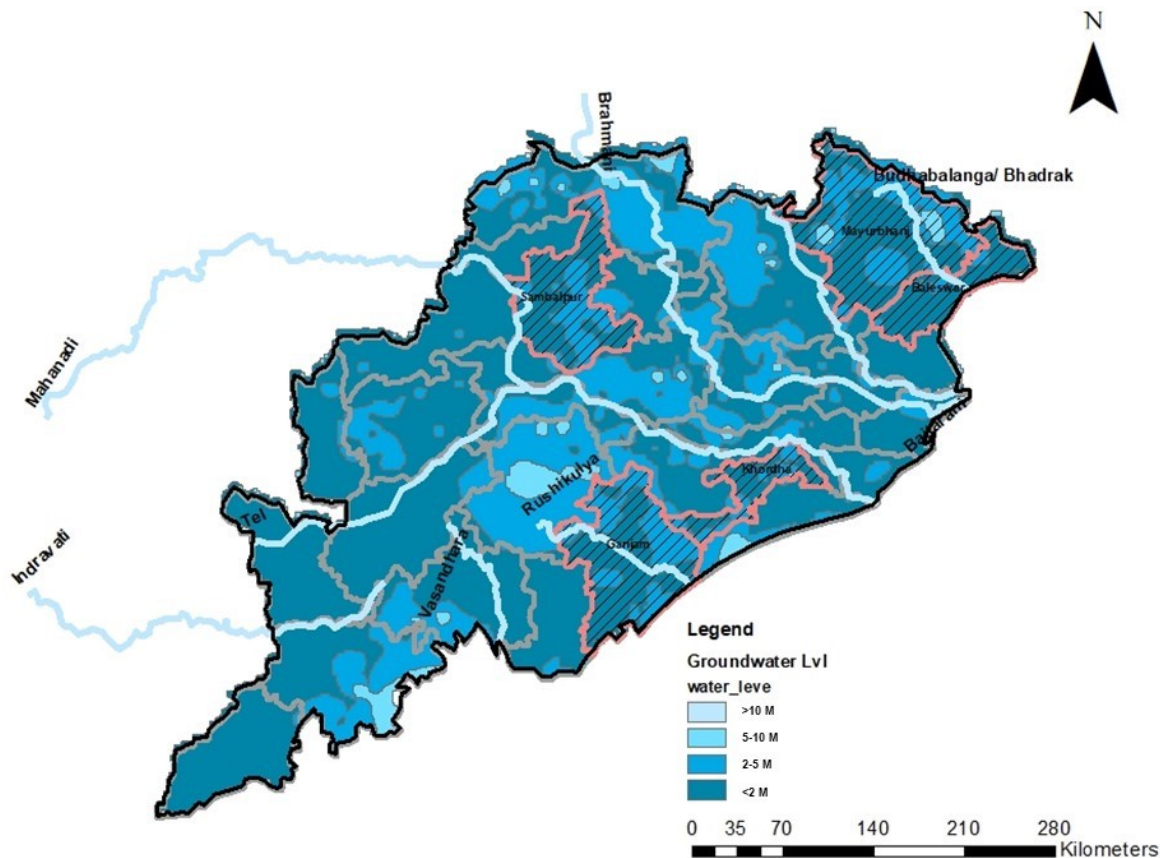


# Early pilot in Dhenkanal district demonstrating urban-rural convergence for FSSM



# Seven districts selected in Phase I: Angul, Balasore, Dhenkanal, Ganjam, Khurda, Mayurbhanj, Sambalpur

- District Selection focusing on Water Pollution Abatement utilizing data on rivers & basins, groundwater, and FSTP status



# List of ULBs (43) in Selected 7 Districts

Sl.No	Basin	District	Basin	ULBs
1	Mahanadi & Brahmani	Angul	Brahmani	Anugul
2			Mahanadi	Athmallik
3			Brahmani	Talcher Sadar
4	Subarnarekha & Budhabalanga & Baitrani	Balasore	Budhabalanga	Balasore
5			Subarnarekha	Jaleswar
6			Budhabalanga	Nilagiri
7			Baitarani	Soro
8	Mahanadi & Brahmani	Dhenkanal	Brahmani	Bhuban
9			Brahmani	Dhenkanal
10			Brahmani	Hindol
11			Brahmani	Kamakshyanagar
12	Mahanadi & Rusikulya & Bahuda	Ganjam	Rushikulya	Aska
13			Rushikulya	Belaguntha
14			Rushikulya	Bhanjanagar
15			Rushikulya	Berhampur
16			Rushikulya	Buguda
17			Rushikulya	Chhatrapur
18			Bahuda	Chikiti
19			Rushikulya	Digapahandi
20			Rushikulya	Ganjam
21			Rushikulya	Gopalpur
22			Rushikulya	Hinjili



# List of (43) ULBs in 7 Districts

Sl.No	Basin (District)	District	Basin (ULB)	ULBs
23	Mahanadi & Rusikulya & Bahuda	Ganjam	Rushikulya	Kabisuryanagar
24			Mahanadi	Khalikote
25			Rushikulya	Kodala
26			Rushikulya	Polasara
27			Rushikulya	Purusottampur
28			Mahanadi	Rambha
29			Rushikulya	Sorada
30	Mahanadi	Khurda	Mahanadi	Balugaon
31			Mahanadi	Banapur
32			Mahanadi	Bhubaneswar
33			Mahanadi	Jatani
34			Mahanadi	Khordha
35	Subarnarekha & Budhabalanga & Baitrani	Mayurbhanj	Mahanadi	Baripada
36			Subarnarekha	Karanjia
37			Baitarani	Rairangpur
38			Subarnarekha	Udala
39	Mahanadi	Sambalpur	Budhabalanga	Kochinda
40			Mahanadi	Rairakhol
41			Mahanadi	Sambalpur
42			Mahanadi	Burla
43			Mahanadi	Hirakud

# THANK YOU

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