

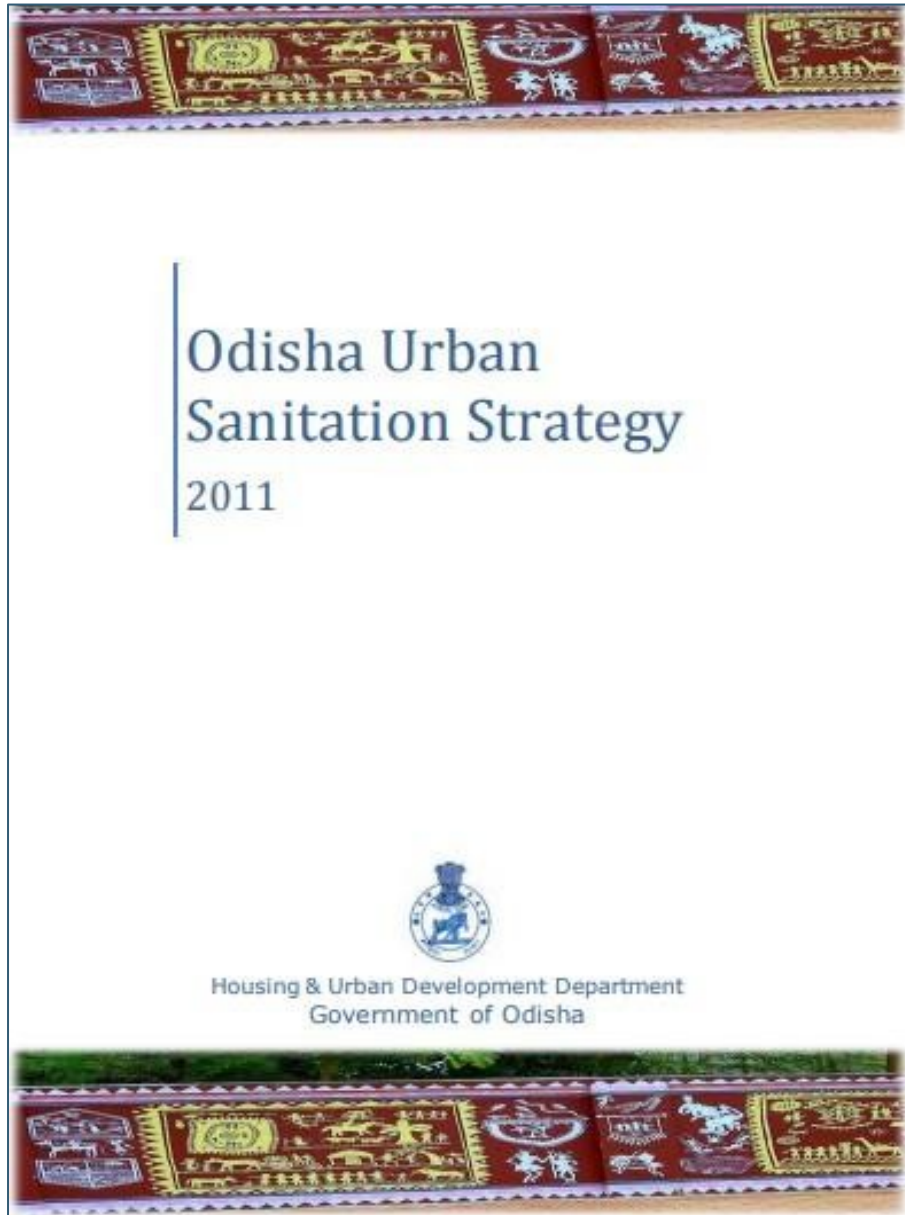


NON-SEWER SANITATION IN URBAN ODISHA

Presentation By: G. Mathivathanan, Principal Secretary,
Government of Odisha
Date : 22nd June 2020



THE JOURNEY STARTED IN 2014



No STP – Zero treatment

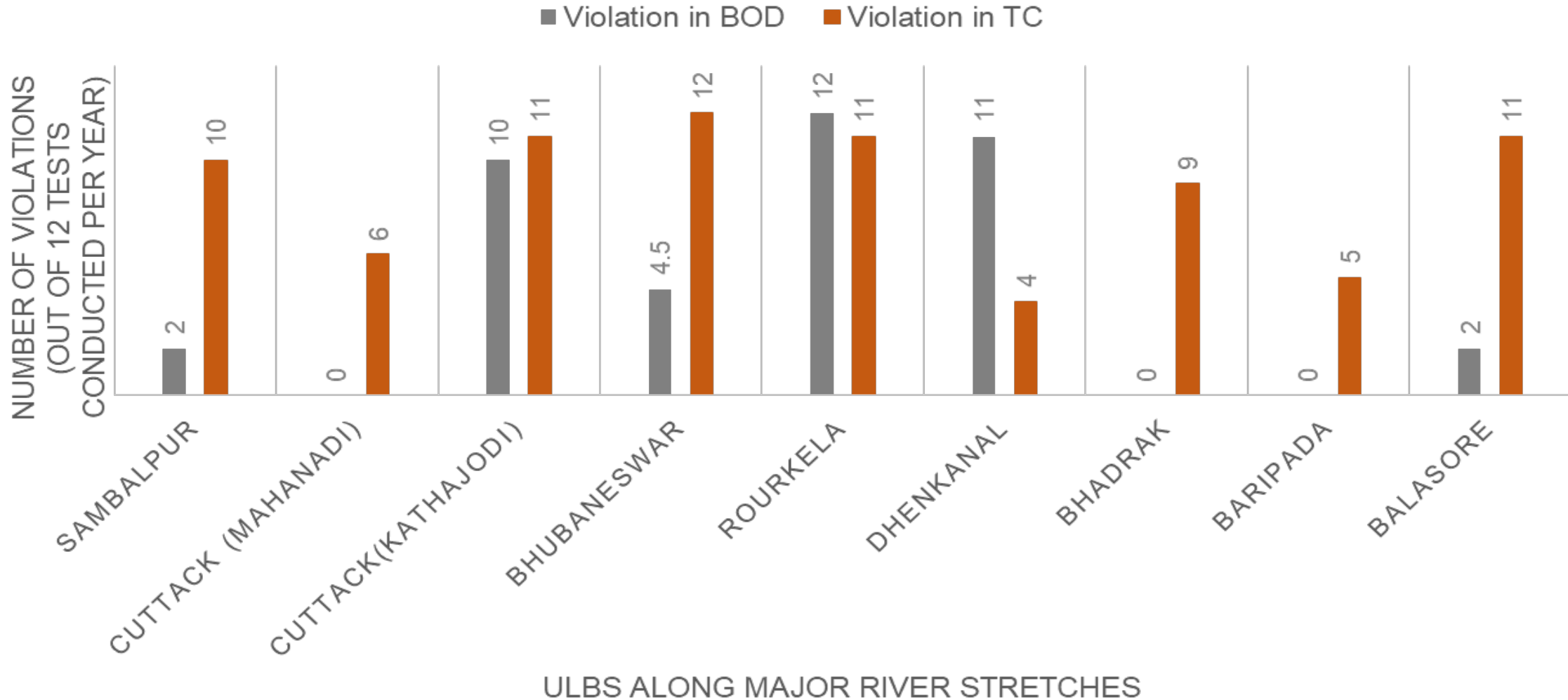
**1 STP – commissioned in 2015 in PURI
of 15 MLD capacity**

**Only 2% of Urban Faecal Sludge
being treated**



ODISHA STATE POLLUTION CONTROL BOARD REPORT ON NUMBER OF VIOLATIONS REGISTERED BY CITIES IN 2015

OSPCB ANNUAL REPORT 2015



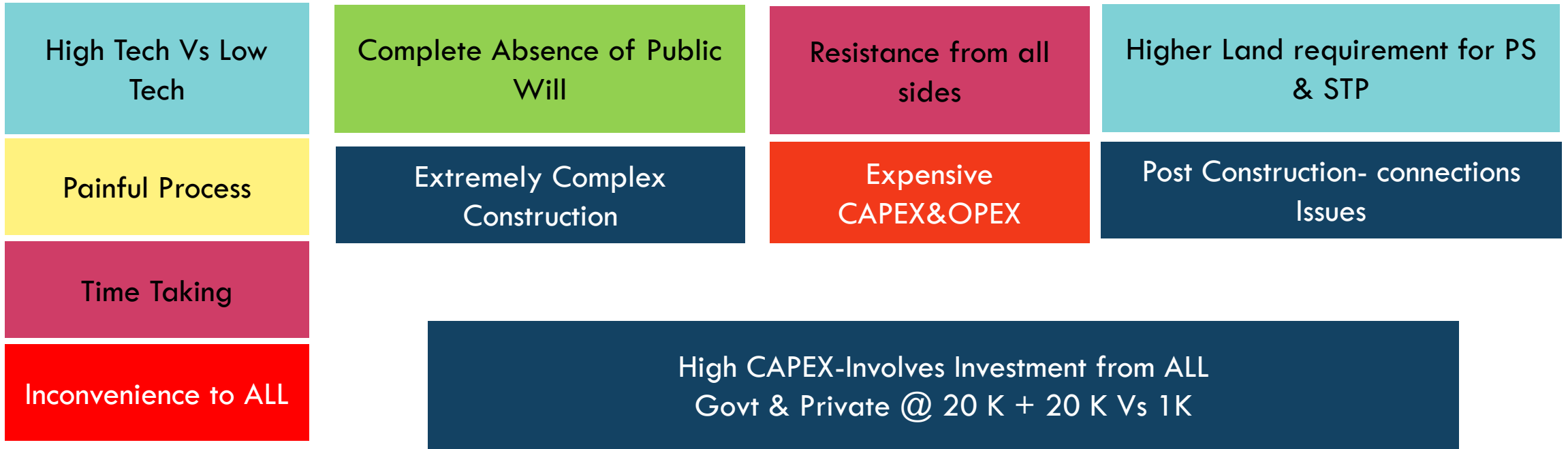


YEAR 2016 : AN OVERVIEW

Puri
Last 12 months of
package left

Cuttack
Critical Phase

Bhubaneswar Packages
Dead



Sewer for greenfield city not for Retrofitting a functional city



BHUBANESWAR SEPTAGE TREATMENT PLANT



SEPTAGE TREATMENT PLANT COMPONENTS



**Anaerobic Baffle
Reactor**



**Horizontal Planted
Gravel Filter**

FREEZING OF TECHNOLOGY OPTION

Chlorination is to be avoided as far as possible

Polishing pond with cascade aeration provided for controlling pathogens



- **Cover above the sludge drying beds**
- **Wheeled covers on the set of beds**
- **Netted plastic mat over sand layer to prevent loss of sand**



SOLID PRODUCT AS MANURE

Composting of dried sludge using available green waste in the plant



Composting grass from lawn



Composting green waste and dried sludge



Cana harvest from PGF



REUSE OF TREATED WATER IN LANDSCAPE AND PLANTATION





NATIONAL WORKSHOP ON FAECAL SLUDGE MANAGEMENT AT BHUBANESWAR

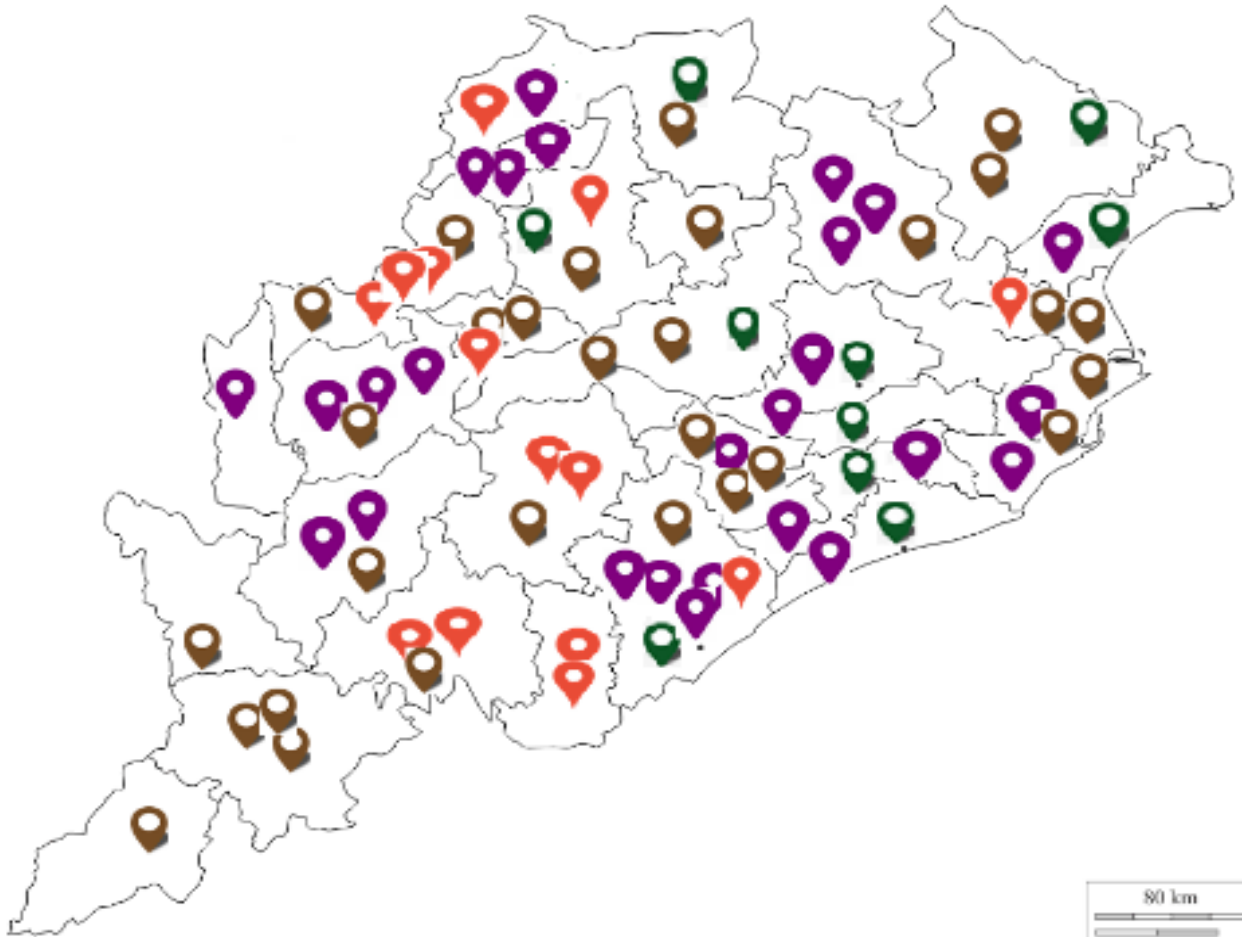
In 24-26 October 2018 the Septage Treatment Plants were inaugurated at Bhubaneswar, Berhampur, Dhenkanal, Puri, Rourkela and Sambalpur through VC by the Hon'ble Chief Minister



The Hon'ble Chief Minister announced extending services and facilities for FSM to all 114 Urban Local Bodies of Odisha



Geographical spread of existing and upcoming SeTPs



Legends

ULBs with operational SeTPs

10



ULBs with SeTP under construction

26



ULBs with tender evaluation under process-

31



ULBs under tendering process

15



10 operational SeTPs in the State

Total Number of SeTPs

104



OPERATIONAL SeTPS



ANGUL SeTP



BERHAMPUR SeTP



BHUBANESWAR SeTP



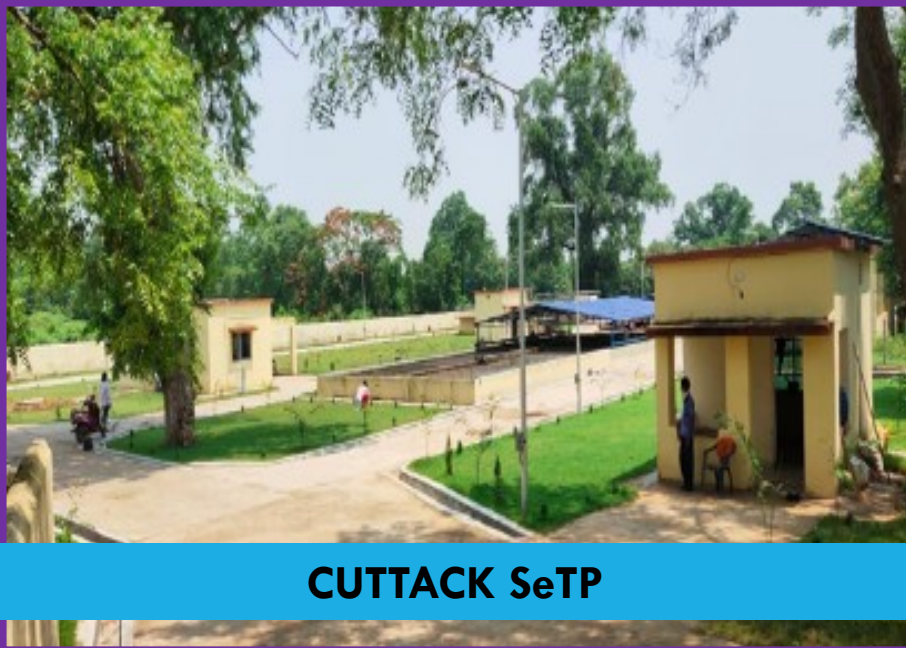
BARIPADA SeTP



BALASORE SeTP



OPERATIONAL SeTPS



CUTTACK SeTP



PURI SeTP



ROURKELA SeTP



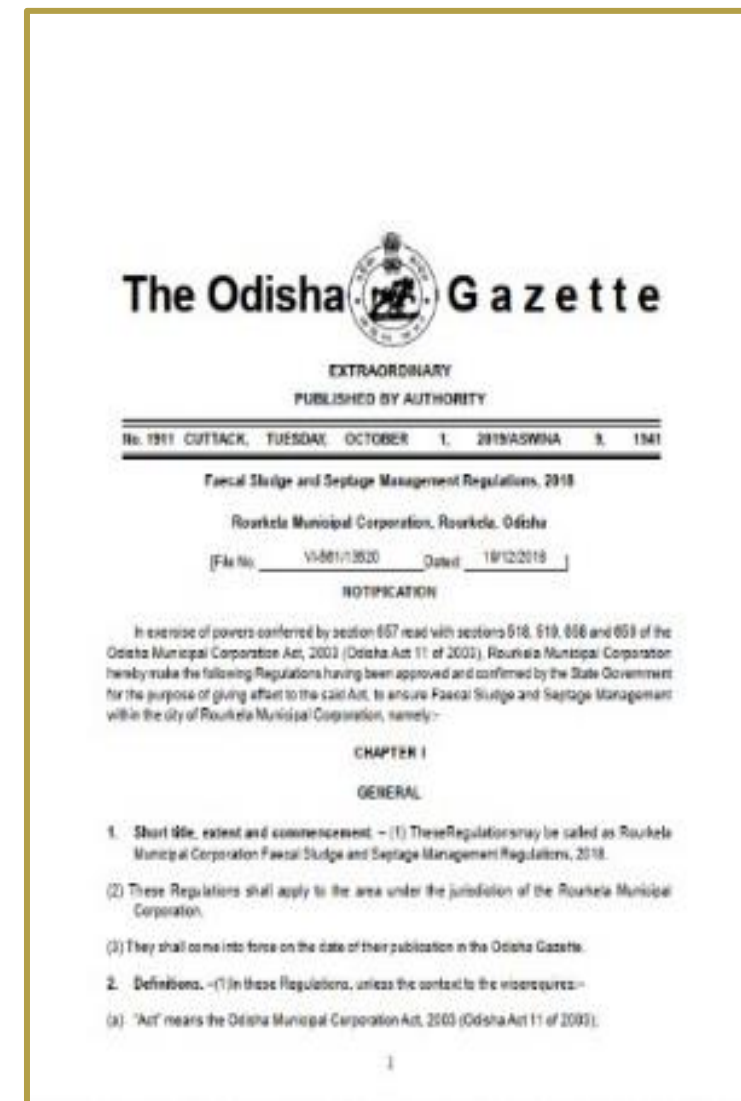
DHENKANAL SeTP



SAMBALPUR SeTP



FSSM REGULATIONS 2018 IN 114 ULBS





HANDOVER OF O&M OF SETPS TO SHGS



Odisha has taken a big leap recently by handing over the Operation and Maintenance of the Septage Treatment Plants (SeTPs) to women and transgender SHGs for ensuring inclusive sanitation by empowering communities.

- ▶ **Cuttack Municipal Corporation- Bahucharmata Transgender SHG**
- ▶ **Berhampur Municipal Corporation- Agrata City Level Federation**
- ▶ **Sambalpur Municipal Corporation- Patneswar SHG**
- ▶ **Baripada Municipality- Sradha Saburi Area Level Federation**

Assessment and selection of SHGs

Handling Support

Rigorous training for 3 months was given to SHG members on managerial financial & technical aspects



Virtual handover event by Hon'ble Minister, Principal Secretary and DMA, HUDD



The FSSM Army at Berhampur SeTP



TRANSFER OF O&M OF SETPS ON 5TH JUNE, 2020



Bahucharamata TG Group- Cuttack Municipal Corporation



Instilling entrepreneurial skills and ensuring clean and safe sanitation for all

Empowering vulnerable communities and improving their socio-economic status



Patneswar SHG- Sambalpur Municipal Corporation



SHGS IN ACTION AT THE SEPTAGE TREATMENT PLANT

Women SHGs removing dried sludge cakes from the Sludge Drying Bed



Women SHGs desludging at the sludge receiving chamber at Sambalpur SeTP



Women SHGs desludging at the sludge receiving chamber at Berhampur SeTP



Women SHGs cleaning the dried twigs from Planted Gravel Filter

APPRECIATION RECEIVED FOR THE HANDOVER

Pratap Jena retweeted



FSSM Odisha | #StayHomeSt... · 11h

@HUDDeptOdisha had included woman and transgender collectives in Urban Services earlier in form of #SwachhSathi #JalSaathi. However, empowering SHGs to manage technical plants like SeTP; is the next big thing we are aiming at with plans for scaling up to 114ULBs ~ @jenapratap66



Ministry of Housing and Urban Affairs and 8 others



Housing & Urban Development Department, Govt. of Odisha

39 mins ·



THE FINANCIAL EXPRESS · 2 MIN READ
Odisha takes pioneering step towards women empowerment

Initiative highlighted by

- Chief Minister of Odisha
- H&UD Minister, Odisha
- Secretary, MoHUA
- Central SBM (U) programme
- H&UDD, Odisha



Durga Shanker Mishra

@Secretary_MoHUA

Heartiest congratulations to Govt of Odisha for handing over 4 Septage Treatment Plants (STPs) in Berhampur, Sambalpur, Cuttack & Baripada to Self Help Groups (SHGs) of women collectives & transgenders for Inclusive Sanitation & Empowering Communities.





Male SHGs in Bhadrak have been handed over the responsibility of the Operation and Maintenance of cesspool vehicles



O&M of CT/PT handed over to Women SHGs in Berhampur Municipal Corporation



Swachh Saathis in Bhadrak Municipality involved in the demand generation for cesspool services





INCREASING ACCESS TO MECHANISED DESLUDGING SERVICES PROCUREMENT OF SMALL CESSPOOL VEHICLE



- State procured **209** cesspool vehicles for all 114 ULBs.
- There are **80 private owned vehicles**.
- All the cesspool vehicles registered and installed with **GPS monitoring mechanism**



To cater to the extension of mechanised desludging services in the narrow roads that are inaccessible, the state is procuring small cesspool vehicles (STV) of 1000 litres

ULBs are placing order through GeM for small STVs. The procurement is done taking into consideration the requirement of the ULB

As of date 19 ULBs have already procured small cesspool vehicles. The state is also exploring on procuring double booster pumps for ULBs with acute issue of narrow lanes



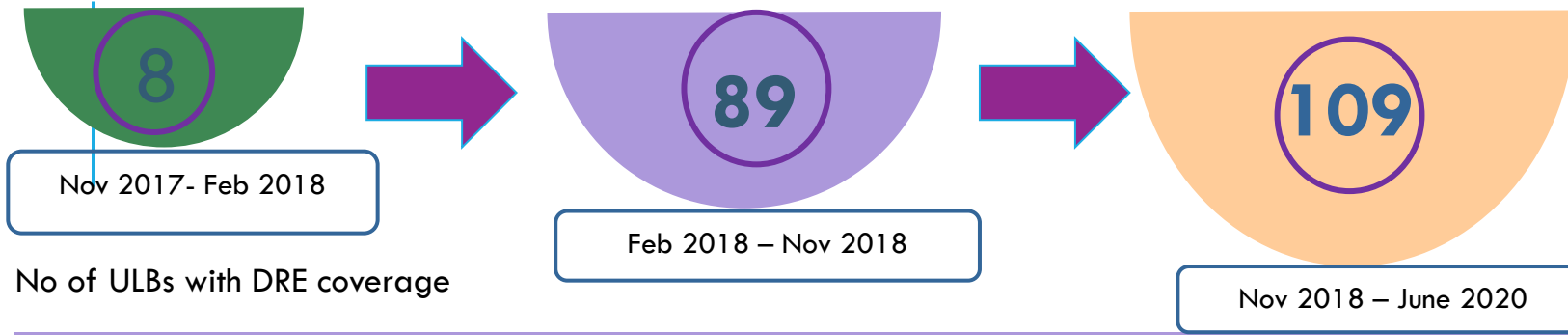
Procurement of small cesspool vehicle at Puri



Small cesspool vehicle at Berhampur



DREs implemented as 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

- ▶ 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,

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



DRE at Bhanjanagar



Cesspool vehicle desludging at DRE in Rambha

and water to ensure no contamination



ODISHA NATIONALLY ACKNOWLEDGED FOR ITS EFFORTS IN IMPROVING SANITATION



Best Engagement Model in Sanitation by a Social Enterprise/Start-up
Agrata City Level Federation (CLF) of women SHGs, Berhampur



Best FSSM Model (ULB)
Berhampur Municipal Corporation



Berhampur being awarded ODF++ certificate by Hon'ble Minister Housing & Urban Development with Mission Director, SBM (U), GoI

Berhampur SeTP, the first and only SeTP in India with ISO certification





THANK YOU

The FSM Army : Agrata CLF in Berhampur in their new uniforms provided by ULB on request from the CLF