

Journey of Faecal Sludge & Septage Management in UP

Challenges & Emerging Priorities

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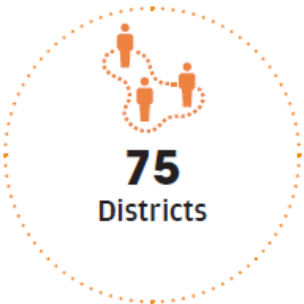
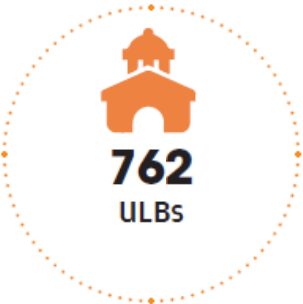
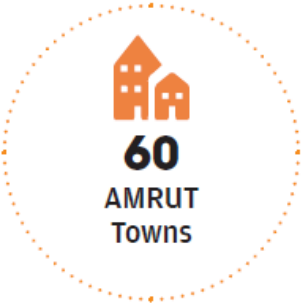
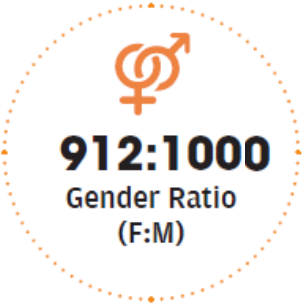
Uttar Pradesh State Profile



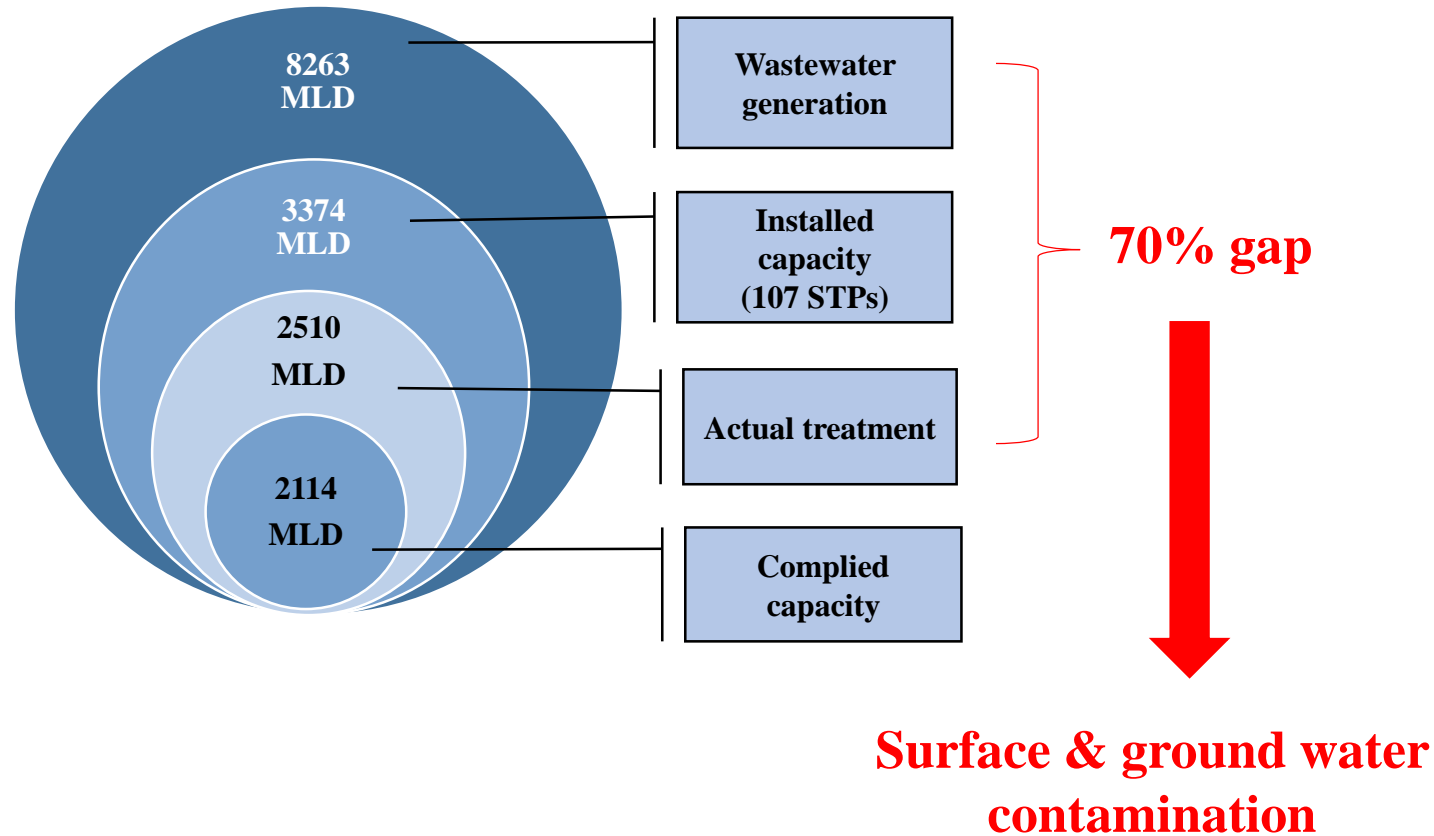
India Map



Uttar Pradesh Map

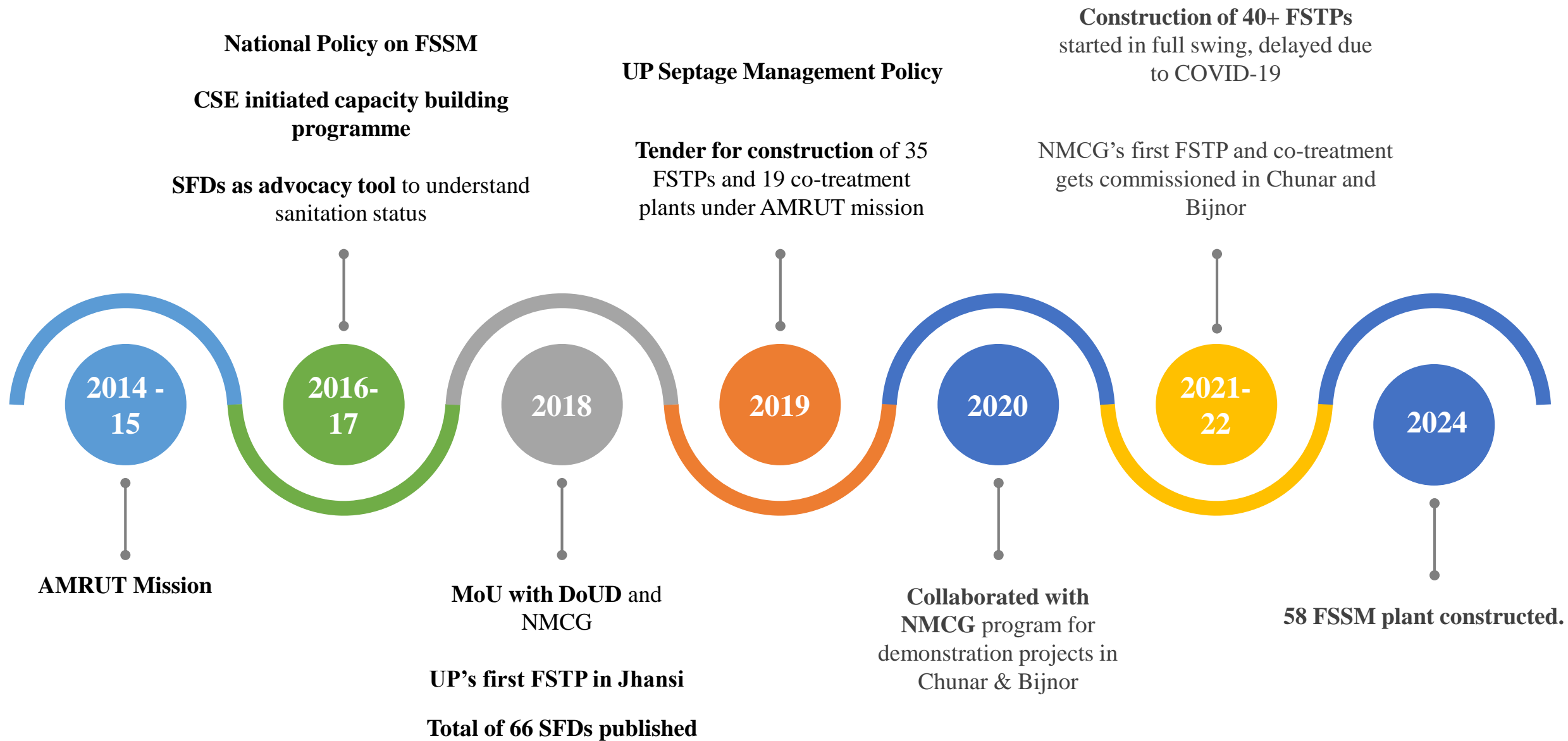


UP's Sanitation Profile

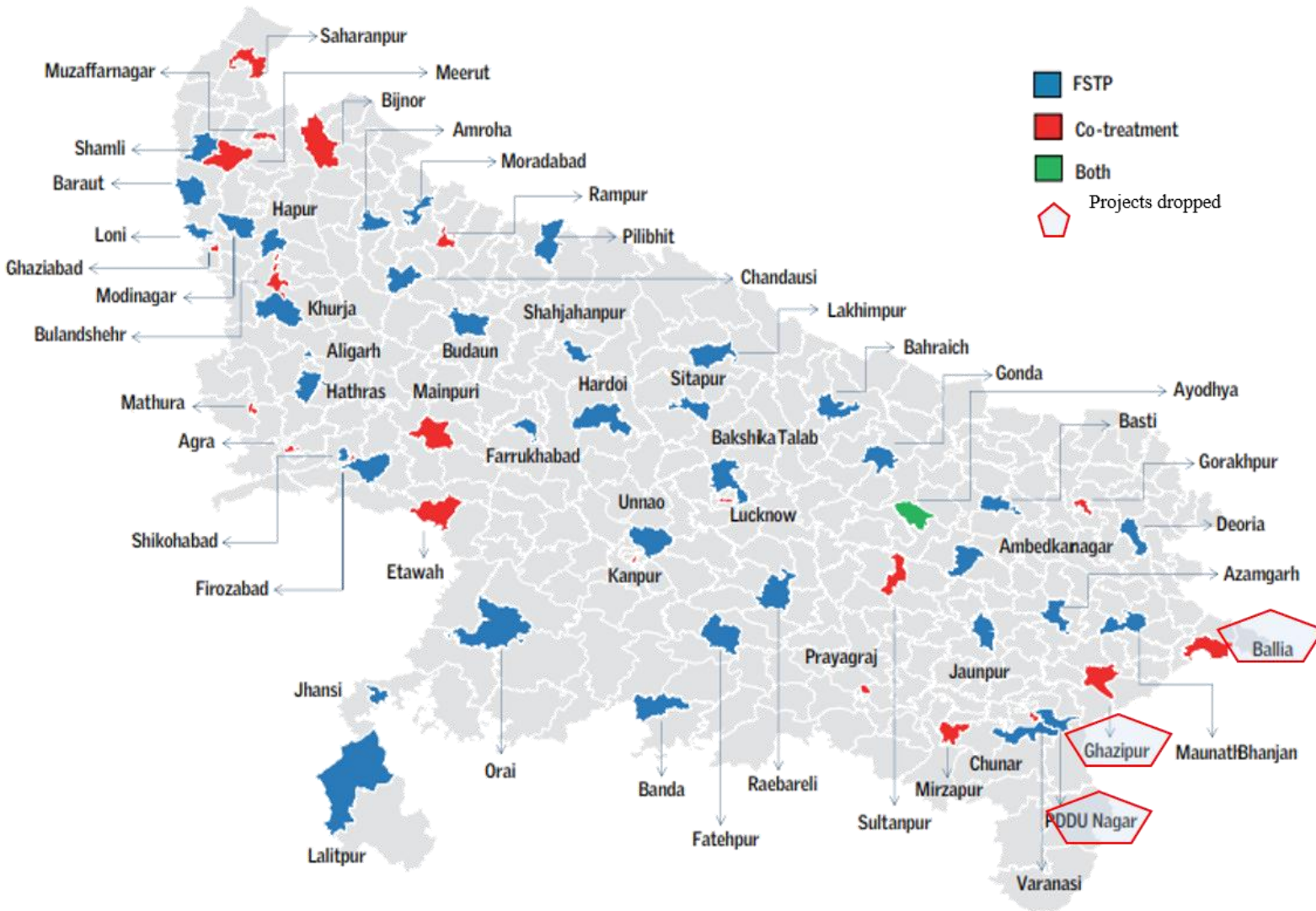


- Out of 762 ULBs in UP, less than **10% ULBs have (partial) sewerage network**
- **Last mile connectivity challenge**, as evident from Bijnor, Raebareilly, Hapur and many more cities, where sewer connections are very low
- As per UP Septage Management Policy 2019, **86% HHs** are reliant on On-site sanitation in urban area
- A large number of ULBs, around **650+**, are **small and medium, unlikely to get sewerage** system in the near future

UP's Journey to Cleaner Cities



Geographical Spread



Map: UP map showing plant location

- 59 treatment plants, across 56 ULBs
 - 39 FSTPs (1141 KLD)
 - 20 co-treatment facilities (845 KLD)
- 58 plants constructed and operational

Funding agency	No of plants	Total Capacity (KLD)	Capex (Crore)
AMRUT	54	1913	198.3297
ULB (14 th FC)	3	43	5.65
NMCG	2	30	2.5842
Total	59	1986	206.5639

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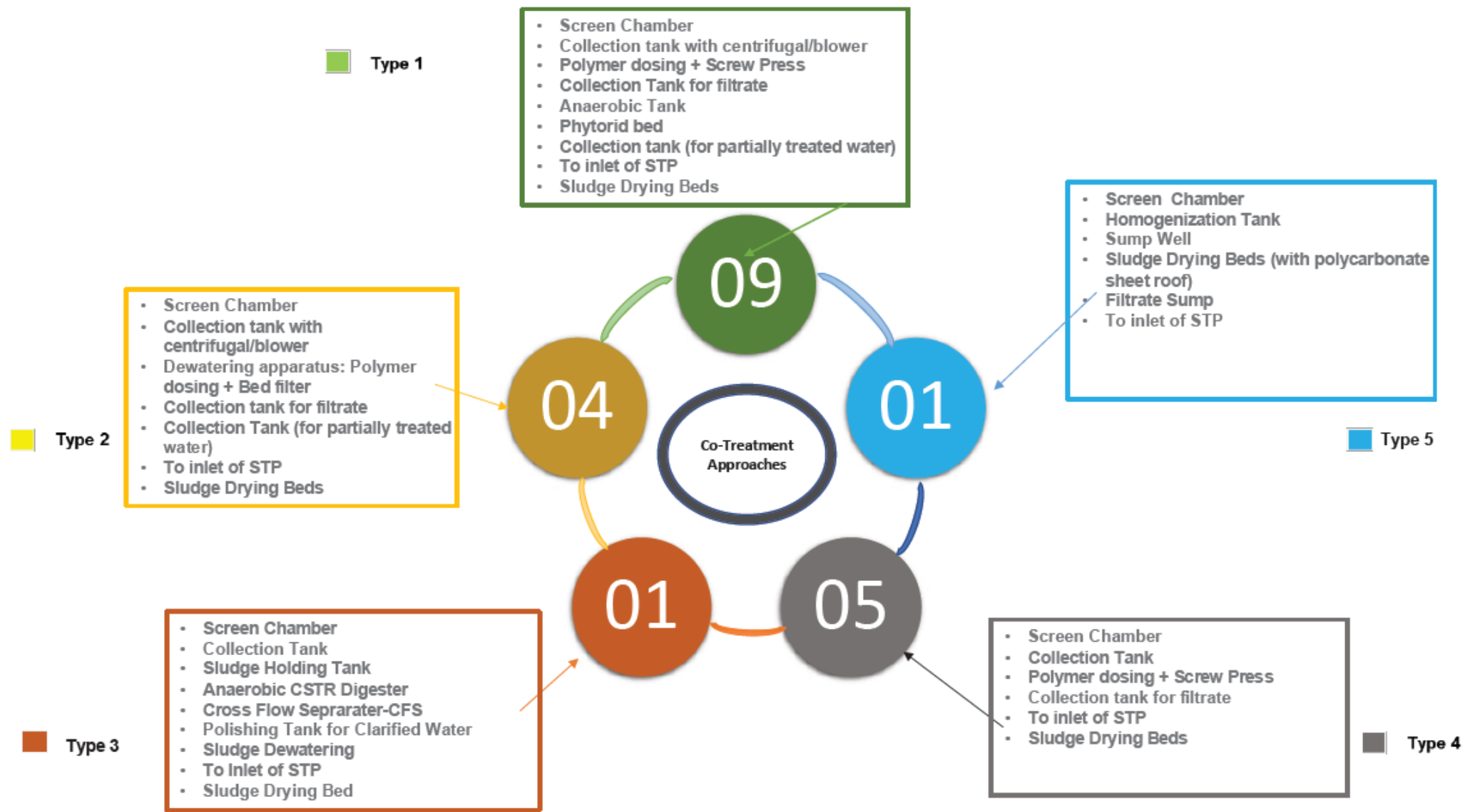
Glimpse of Faecal Sludge Treatment Plant (FSTP)



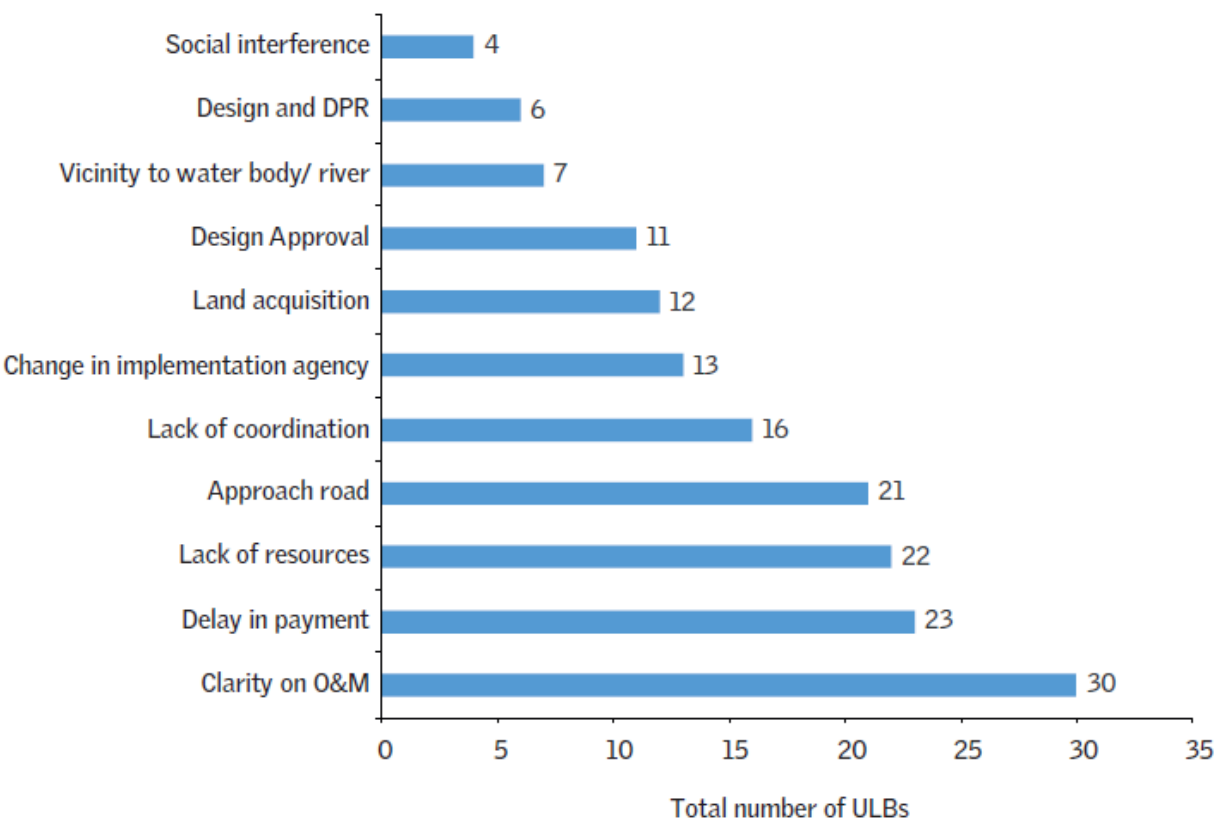
Different Types of Treatment systems - FSTPs



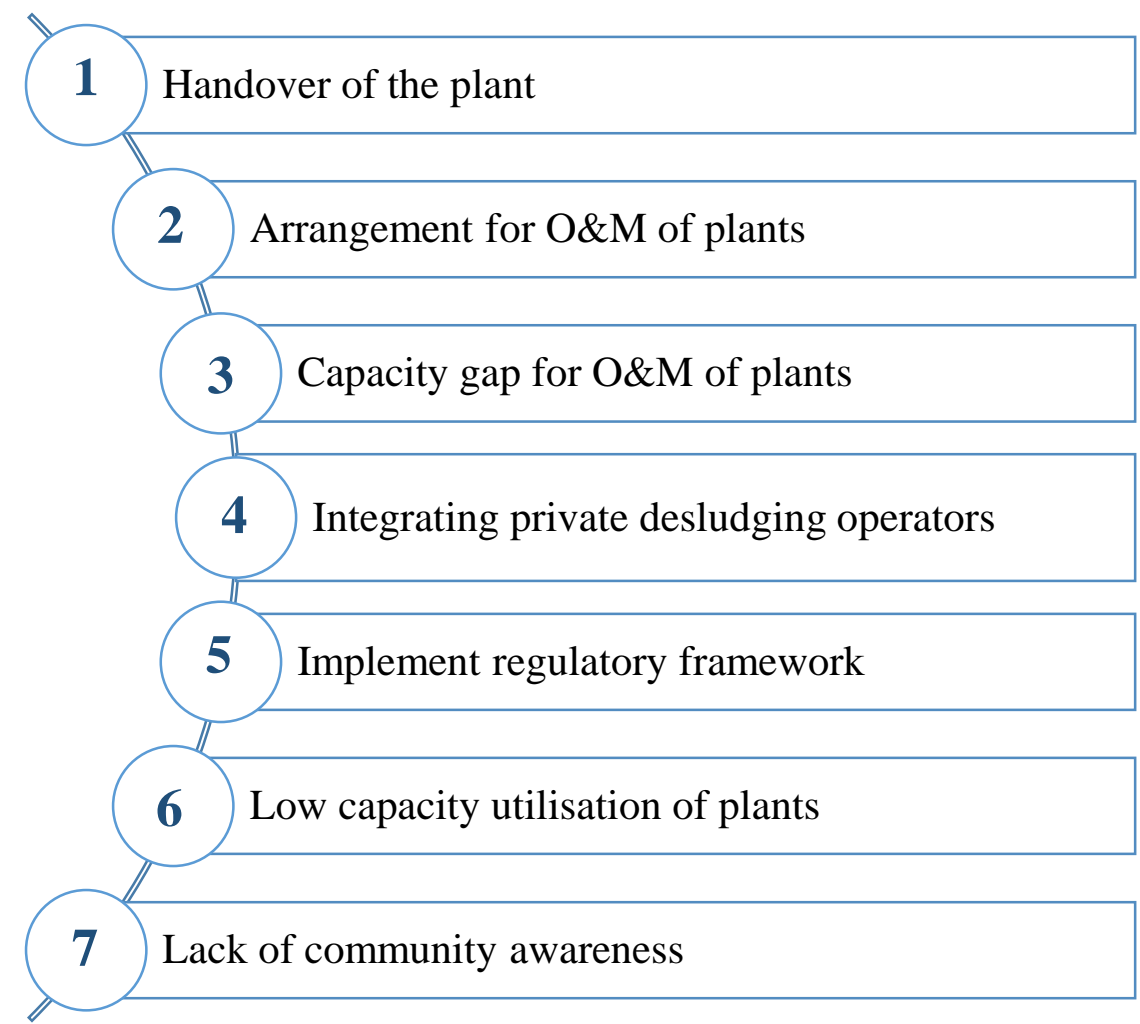
Different Types of Treatment systems – Co-Treatment Plants



Challenges During Construction and Operational Phase

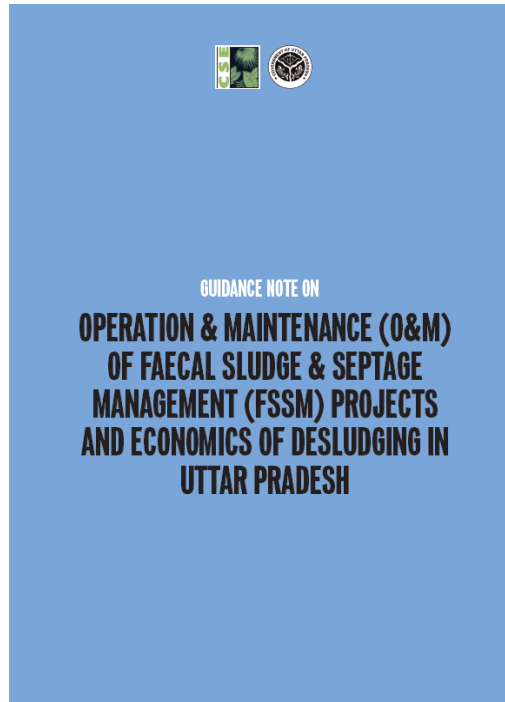


Construction phase challenges

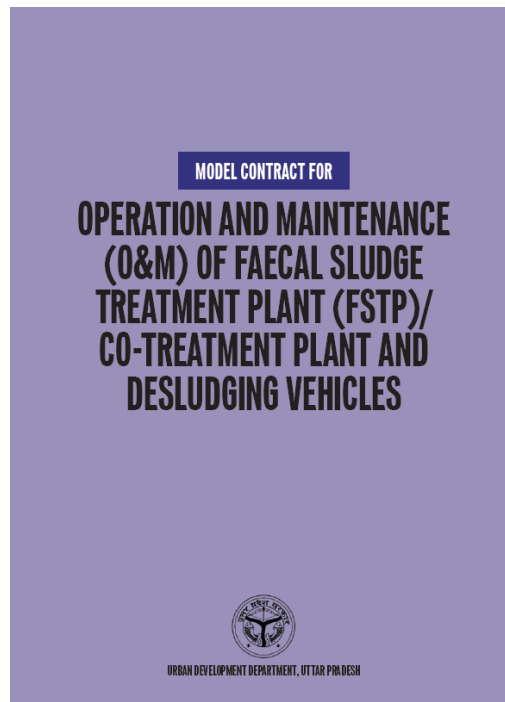


Operational phase challenges

Major Steps Taken to Operationalize the Plants by the State



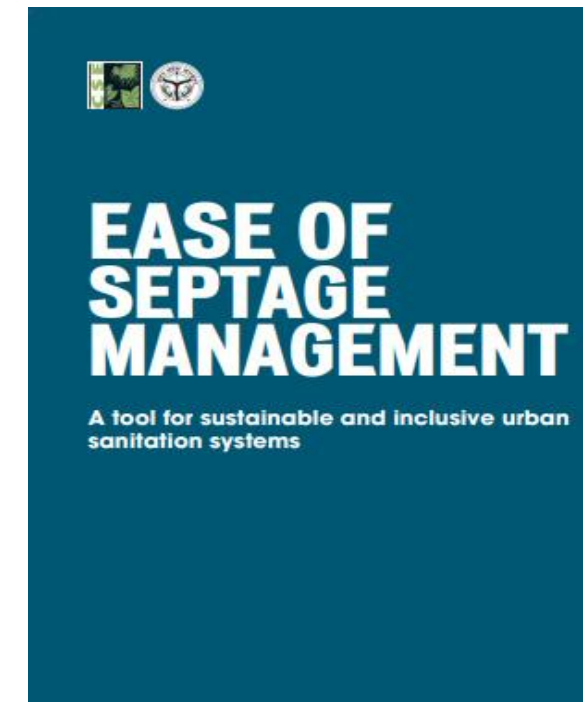
O&M Guidance - reduced cost from Rs. 1.25 Cr/yr for 32 KLD to Rs. 16-18 Lakh/32 KLD plant



Model contract document - for developing tender for O&M of plant

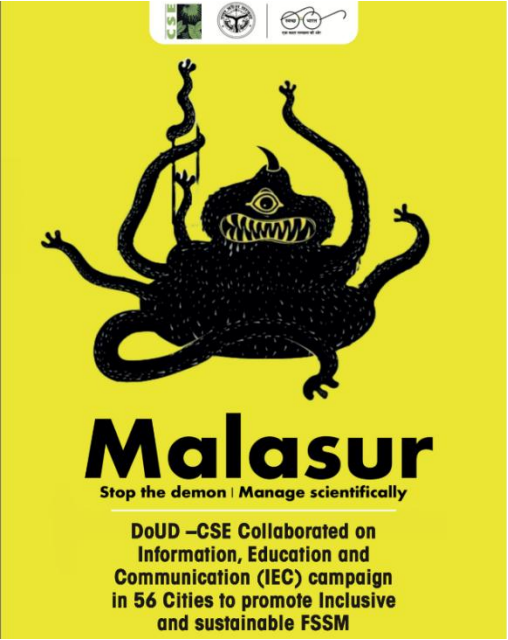
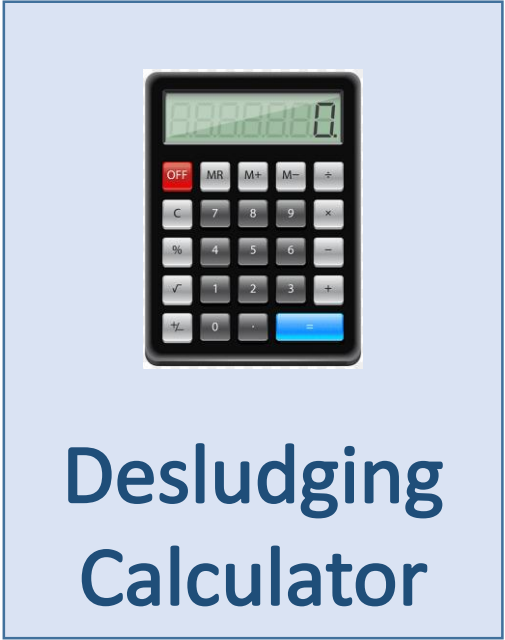


State model bye-laws – for easily drafting city specific FSSM Bye-laws



ESM tool - to monitor ULB progress in septage management on Functionality, sustainability and inclusiveness

Major Steps Taken to Operationalize the Plants by the State



Desludging calculator - An aid to the Cities to scientifically fix the desludging fee

IEC Campaign in Cities – to promote safe sanitation and septage management

Trainings, workshops and review meetings– O&M of FSSM Plants, FSSM Bye-laws etc.

Engagement of SHG women for O&M of 4 plants under AMRUT Mitra program of MoHUA

Desludging Plan

Decoding Desludging

IEC Initiatives: Bridging Awareness and Action

Infrastructure alone can not solve the problem.....Citizen engagement is critical



City-level IEC activities

Decoding Desludging in Uttar Pradesh

PROBLEM STATEMENT

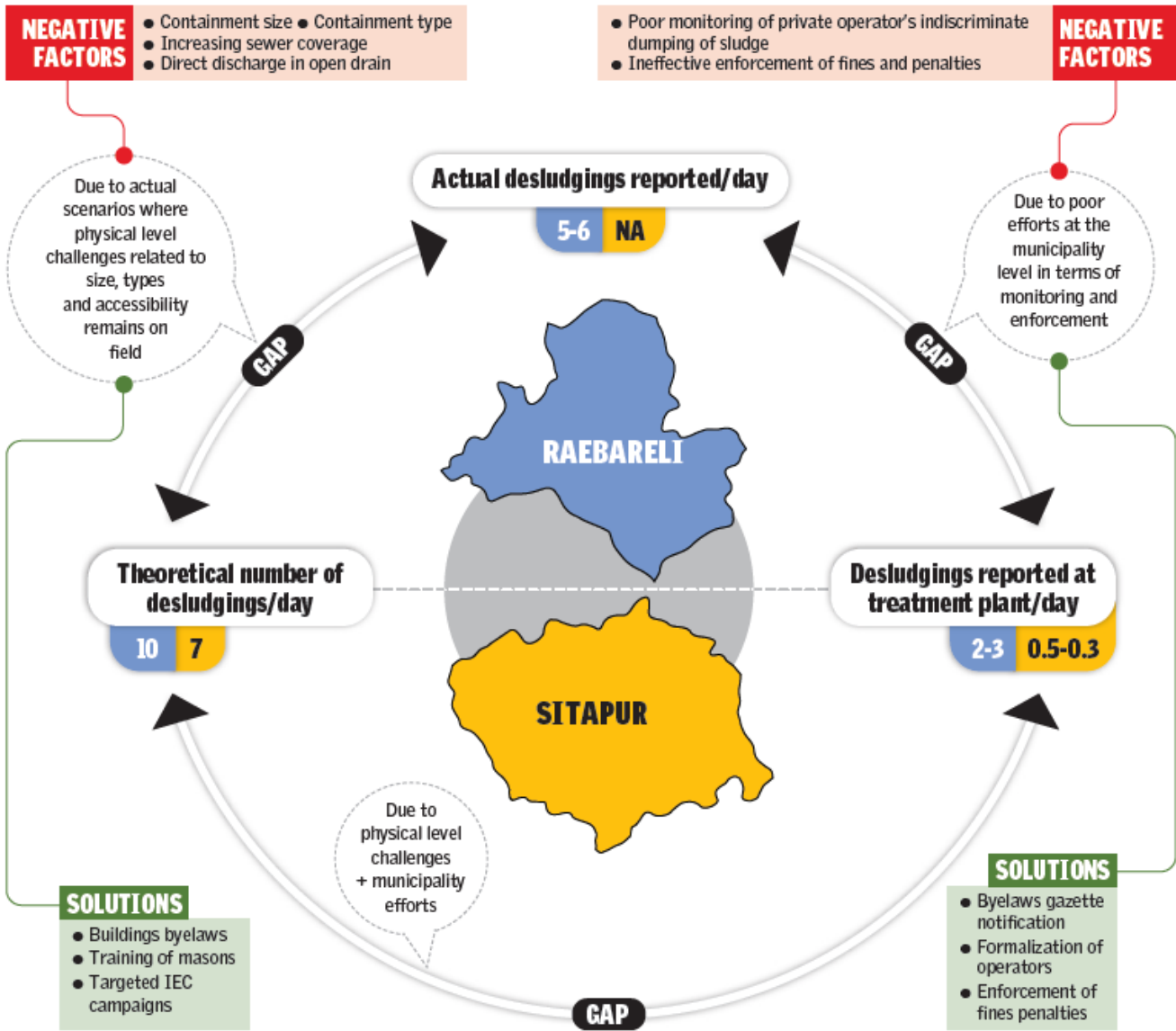
Different towns with similar population of UP have different reported desludgings and subsequent decanting at treatment plant, irrespective of topography

STUDY

-Proposed by CSE in 4 towns for understanding factors affecting desludging with focus on nature of containments and related elements

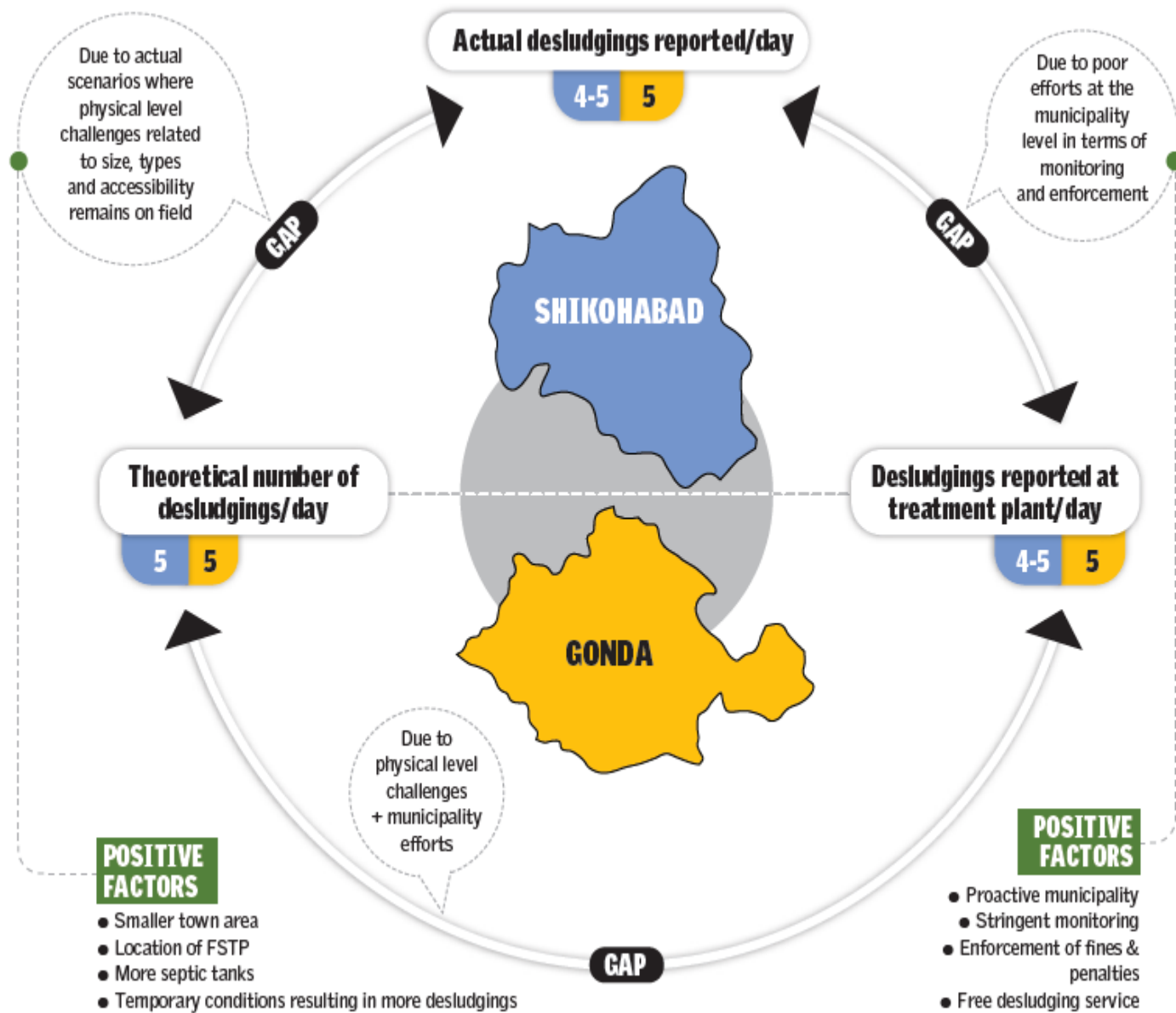
- Each town with 32 KLD FSTP
- Low performers- Sitapur and Raebareli
- High performers- Shikohabad and Gonda
- Total stakeholders interviewed- 480

394 Households, 30 Ward Councilors, 25 Sanitation Supervisors, 15 Masons, 9 Government Officials, 7 Vacuum-tanker Operators



Overview of decoded desludging in Raebareli and Sitapur

Decoding Desludging in Uttar Pradesh



Overview of decoded desludging in Shikohabad and Gonda

RECOMMENDATIONS

Better Monitoring Mechanism

Proactive monitoring of private operators to ensure sludge reaches treatment plants

Action points

- Implement FSSM byelaws
- Formalize private operators
- Levy fines for indiscriminate dumping

Targeted Capacity Building and IEC

Train operators and raise awareness in high potential wards

Action points

- Regular training on safe practices
- Ward-specific awareness campaigns
- Focus on septic tank and fully lined tank areas

Scheduled Institutional Desludging

Mandatory cleaning of government-owned establishments

Action point

Implement institutional desludging plans

Future Containments as per IS Code

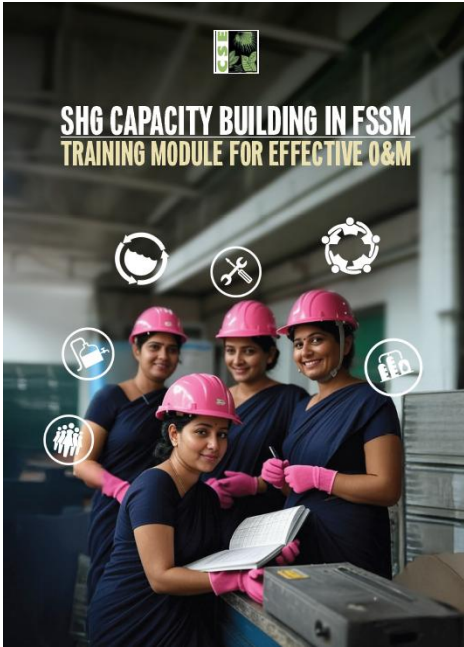
Ensure new constructions follow standards

Action points

- Include in building byelaws
- Check during map approval

Gender mainstreaming: Engaging Women SHGs for O&M of FSTPs

- Engaged SHGs in 4 ULBs: Raebareli, Sitapur, Jaunpur and Khurja
- Helped in women’s economic empowerment by gaining access to financial resources
- Capacity building helped in skill development and knowledge, increasing their confidence and status in society



CSE's Key Initiatives Around SHGs Engagement



Activity during Orientation



Class room orientation



Exposure Visit to FSTP



Do's and Don'ts Panel at FSTP



Tools and equipment Panel



Module specific O and M Panel

Performance Monitoring and Evaluation

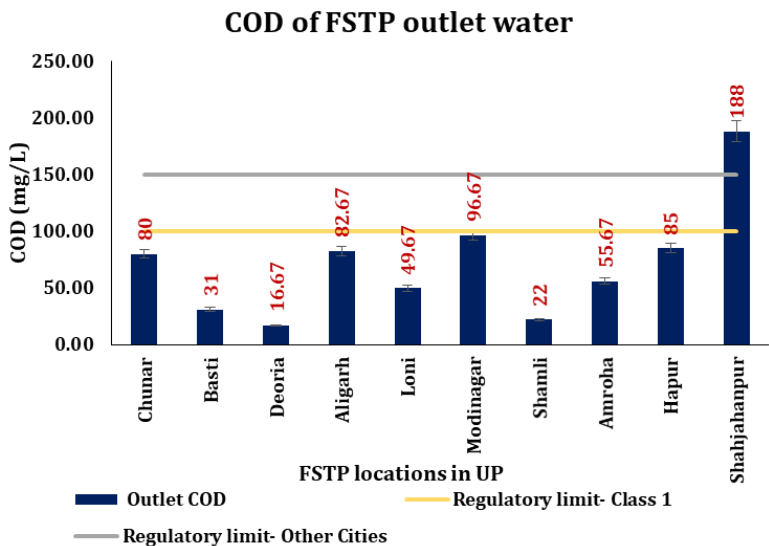
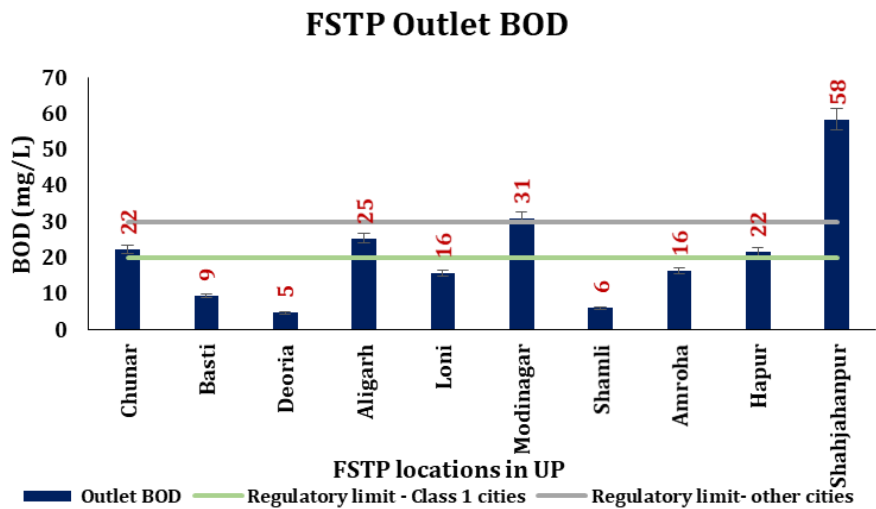
Preventing water contamination:

- Currently, around 700+ Kilo Liters per Day (KLD) of sludge is being treated at the plants, which would have otherwise been discharged into water bodies, contaminating water resources



Sample collection

Testing of 26 Plants - Findings Shared with the State and ULBs for Necessary Actions



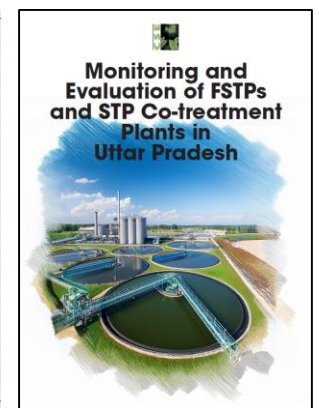
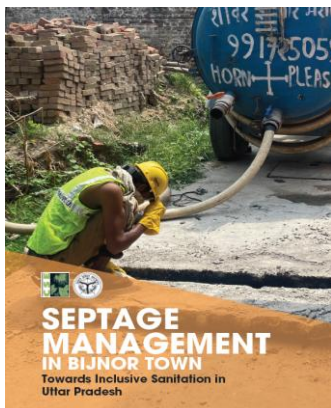
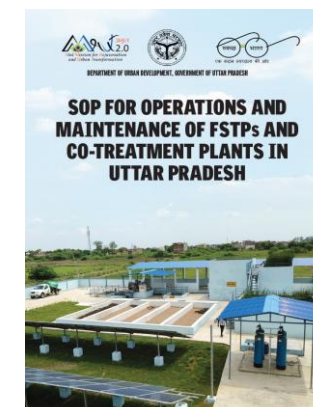
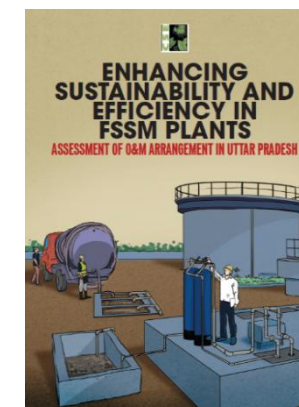
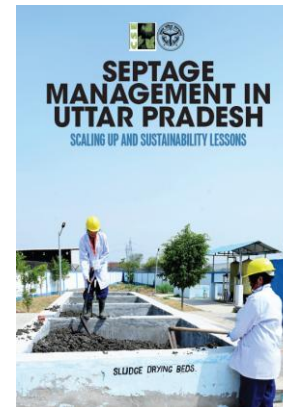
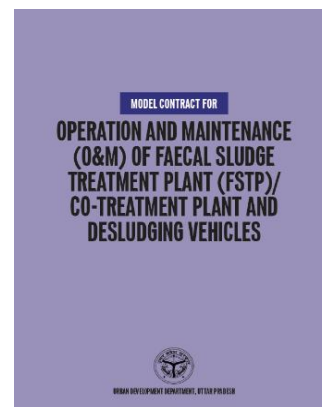
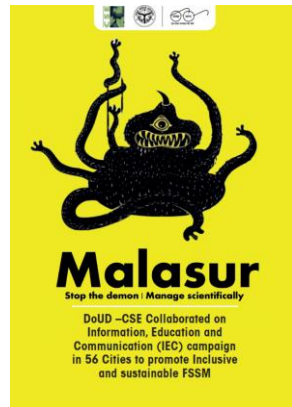
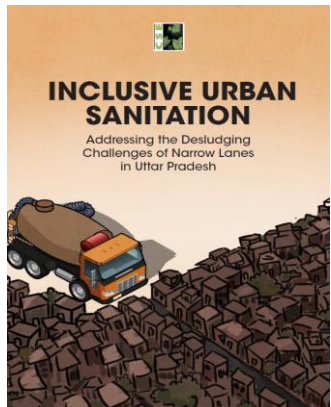
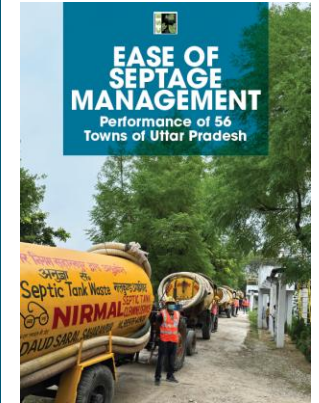
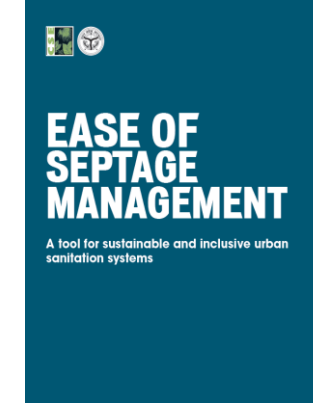
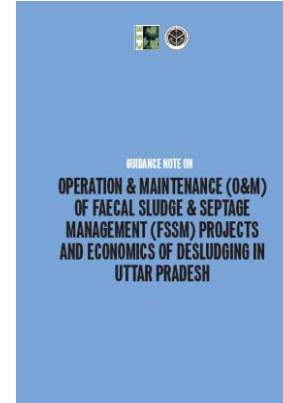
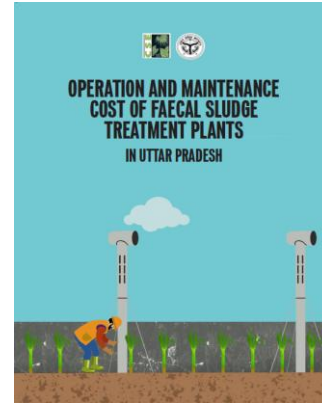
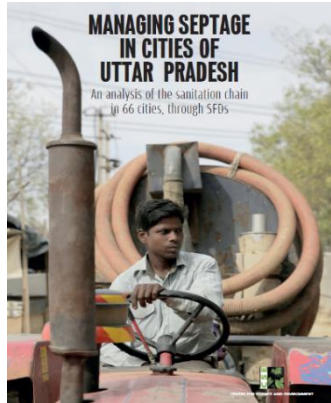
Key Learnings

- **Sustainability of FSSM is a governance issue**
- **Upscaling FSSM requires careful planning- Locating the plant, Right-sizing the plant, Technology selection**
- **Continuous engagement between with State and ULBs drives the change**
- **Effective coordination between administrative, political leadership, citizens and relevant stakeholders is crucial**

Way Forward

- **Maximise utilisation of existing plants**
- **Ensure quality and efficiency of treatment**
- **Closing the loop—Reuse treated water and biosolids**
- **Strengthen institutional ownership and capacity at the ULB level**
- **Establish digital public infrastructure for service monitoring**
- **Leverage learnings to scale FSSM across all ULBs under SBM 2.0**

Various Publications Prioritizing O&M and Sustainability of FSSM





Thank You!