



FAECAL SLUDGE AND SEPTAGE MANAGEMENT (FSSM) IN UTTAR PRADESH, INDIA

**Journey towards City-wide
Inclusive Sanitation- Challenges &
Learnings**

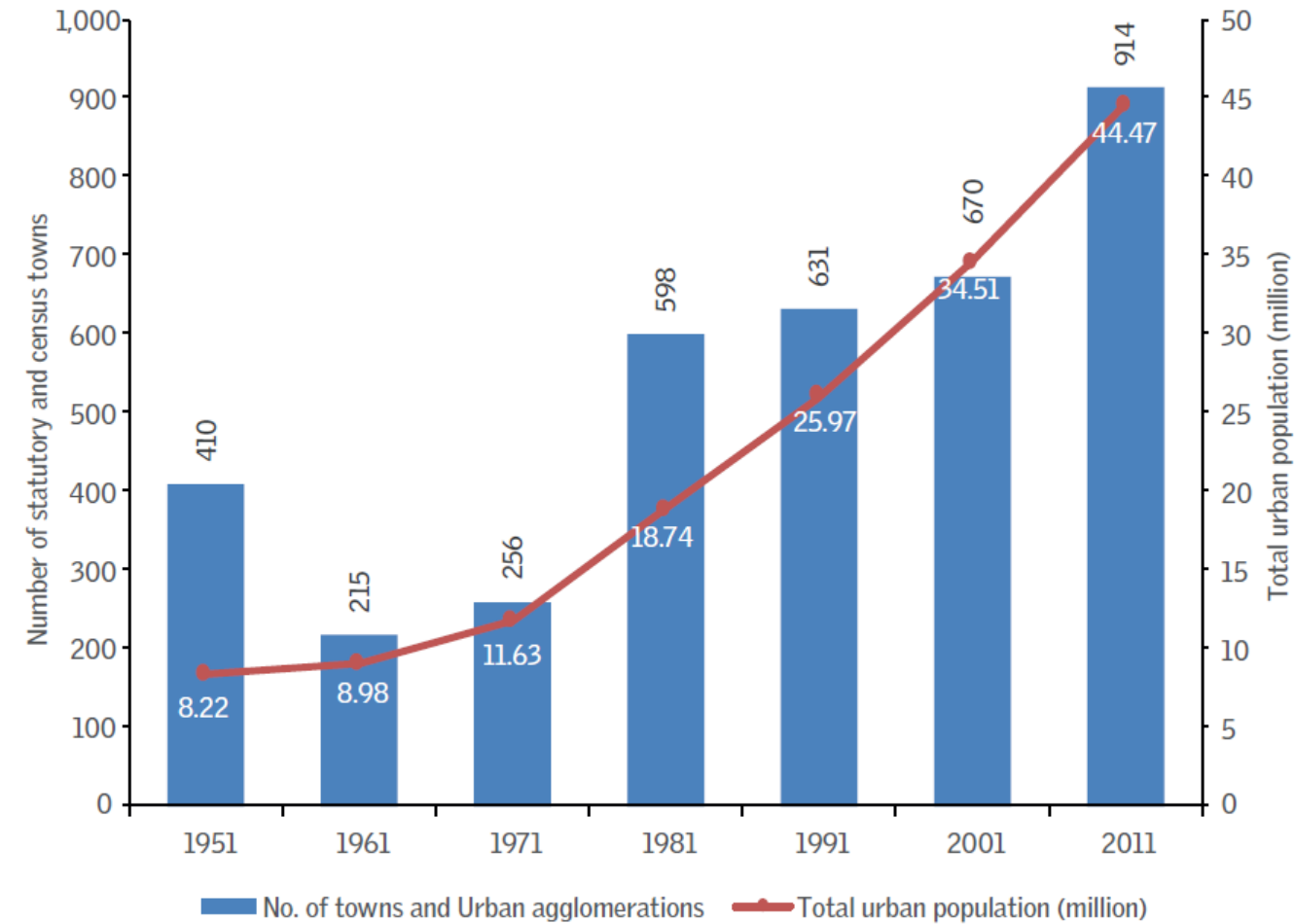
SARIM, CSE

August 11, 2025

INTERNATIONAL ROUNDTABLE ON FAECAL SLUDGE MANAGEMENT FOR CITY-LEVEL OFFICIALS OF ETHIOPIA

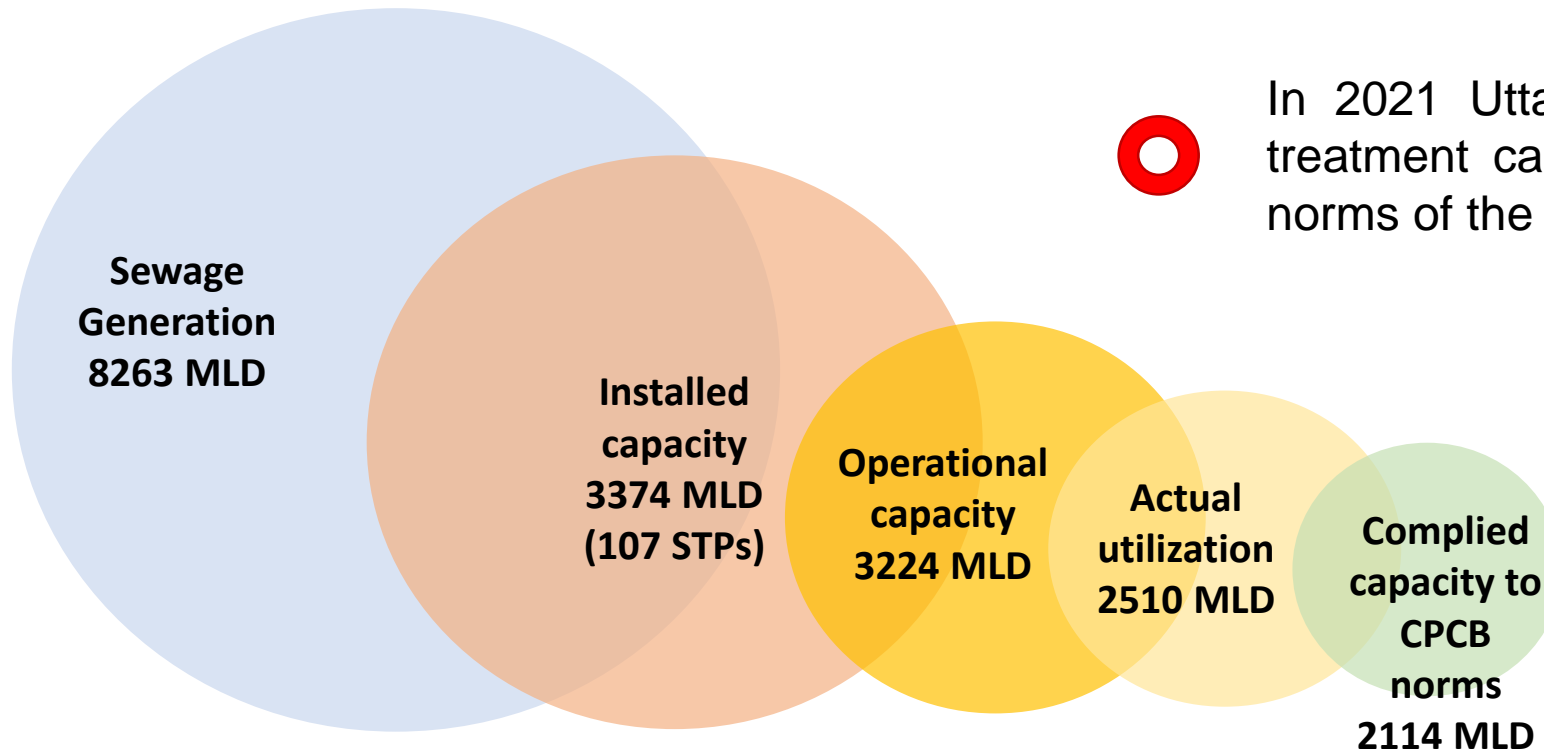
**Addressing Issues, Challenges, and Bottlenecks
for Sustainable Urban Sanitation**

Urbanisation in Uttar Pradesh



- Most populous state in India
- Population- 199.6 million- Rural- 155.1 million, Urban – 44.5 million
- Urban centres (No of census towns and urban agglomerations) increased 123% from 1951 to 2011. In 2011, UP has 914 urban centres accounting for 22.27 per cent of the population.

Introduction – Sewerage and STPs



In 2021 Uttar Pradesh has only 25.5% sewage treatment capacity complying to CPCB discharge norms of the total sewage generated.

Sewage generation and treatment capacity in Uttar Pradesh

- Sewerage system- Only 20% of the urban areas
- Only 31 towns (out of 734 in the state) have partial coverage by sewerage systems (2021).

Where it all started

In 2022, Uttar Pradesh had 62 FSTPs and Co-treatment plants, in various stages of construction facing different challenges



Launch of report

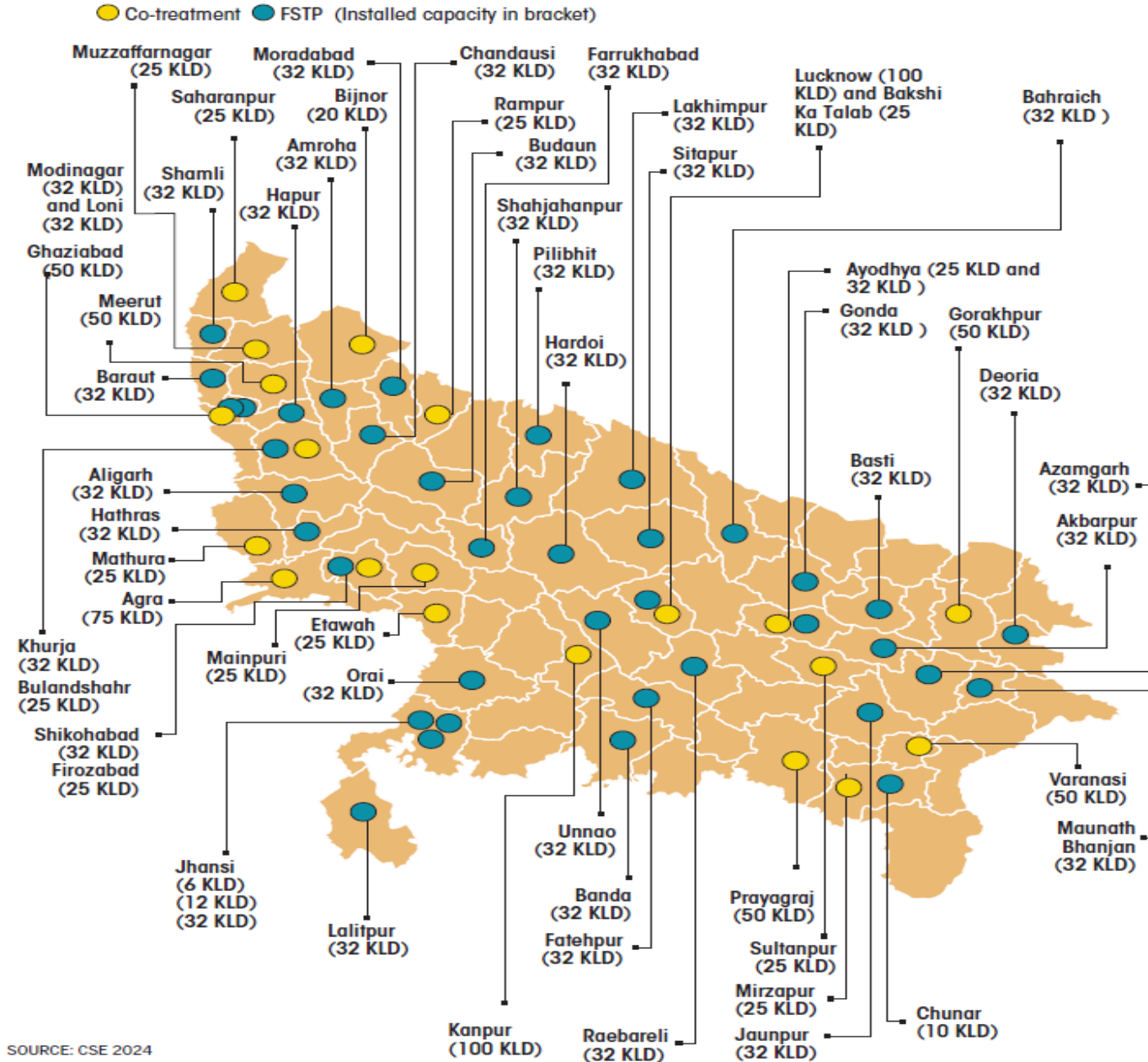


PURPOSE OF THE REPORT



- Assess the status of UP's septage treatment infrastructure
- Identify emerging priorities for operationalization of the plants
- Long-term upscaling and sustainability challenges

FSSM in Uttar Pradesh – Overview

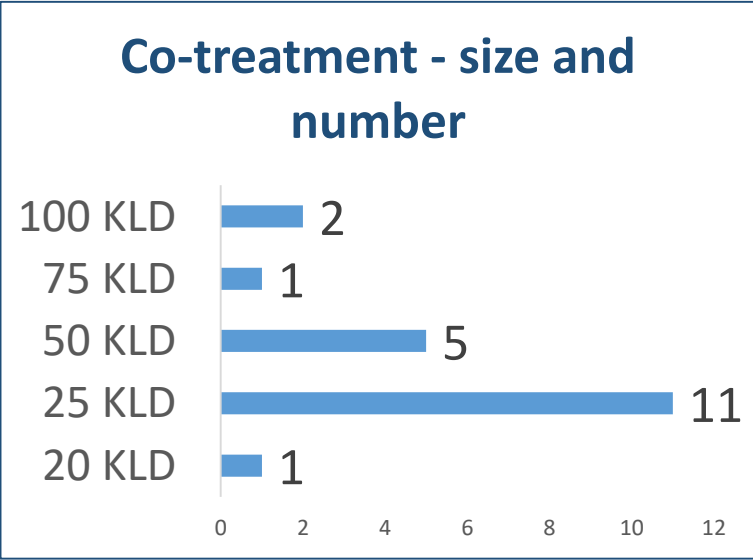
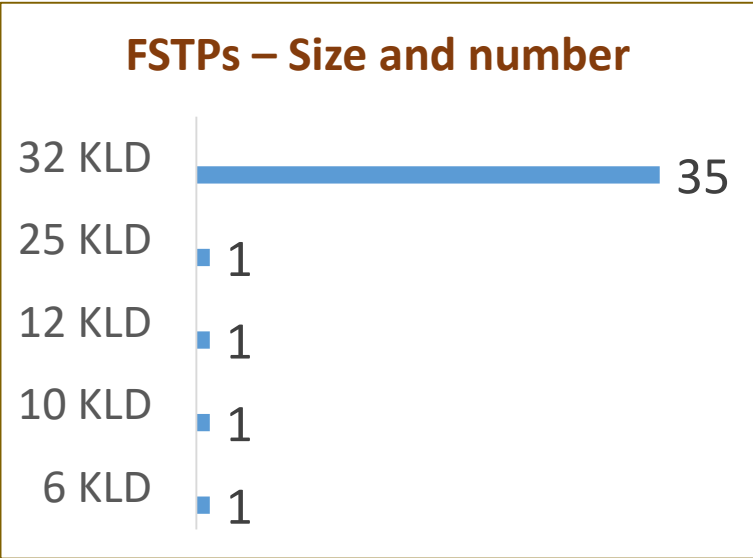


- **2018** First FSTP – Jhansi City 6 KLD
- **2019** Tender for 22 Co-treatment plants and 39 FSTPs
 - Overall UP planned for 40 FSTPs and 22 Co-treatment Plants
- **March 2023** Construction of 41 plants completed
- **March 2024** 58 plants completed, one under construction
- **May 2024** 03 projects dropped- Ballia, Ghazipur and PDDU Nagar due to land issues
- **June 2025** Remaining 01 town (Mau) project also completed, a total **59 plants** – 20 Co-treatment and 39 FSTPs constructed

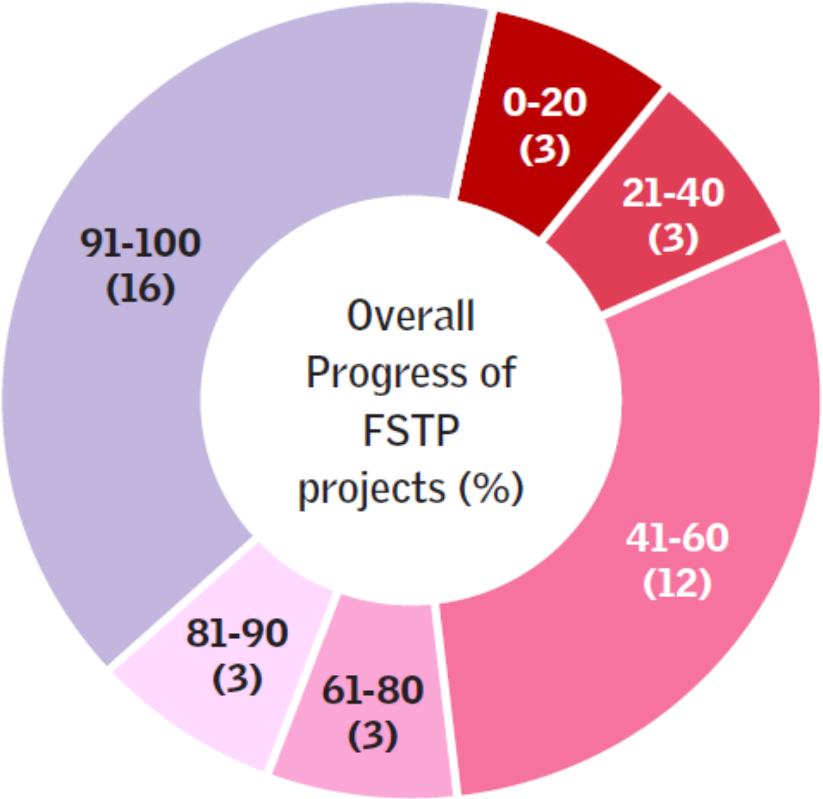
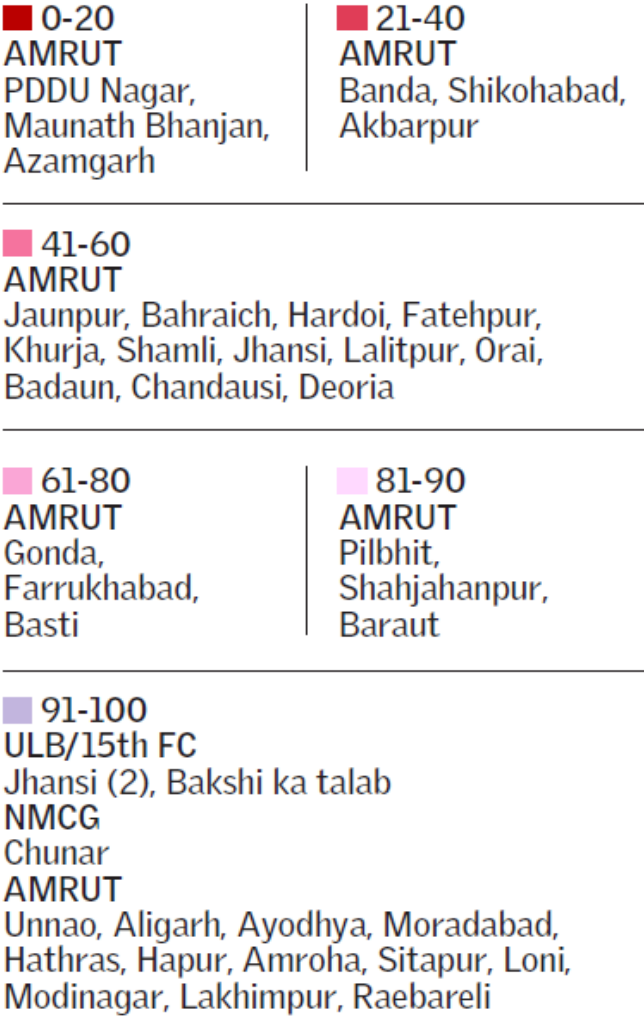
FSSM in Uttar Pradesh –Technology, size and capex



Funding agency	No of plants	Capex (Cr) INR
AMRUT	54	198.3
City	3	5.6
SMCG	2	2.59
Total	59	206.56



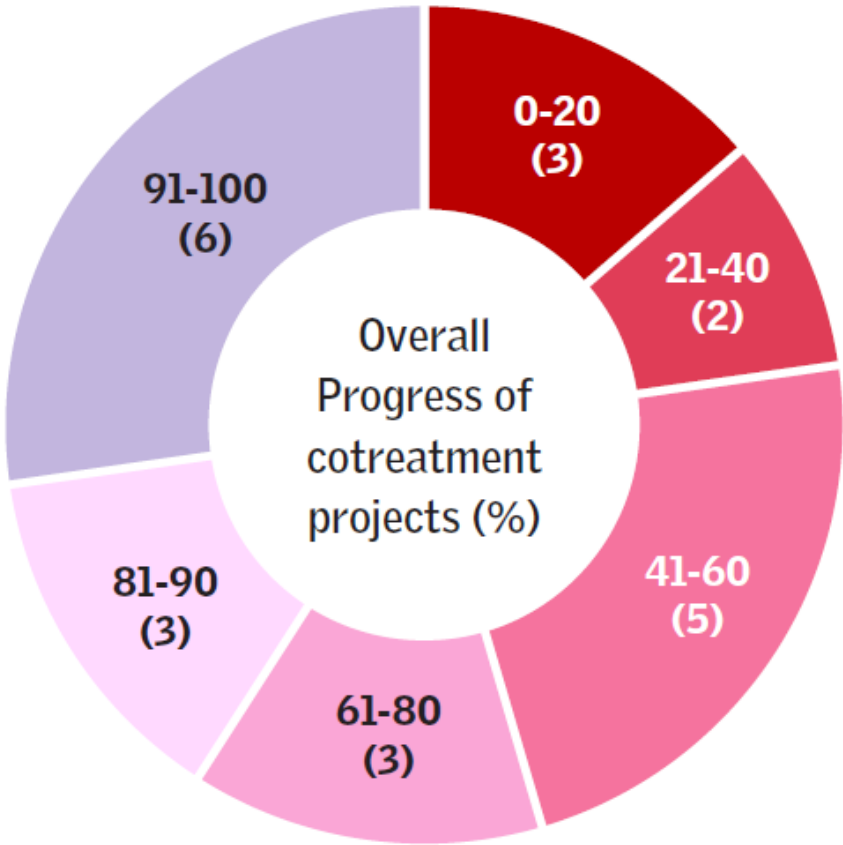
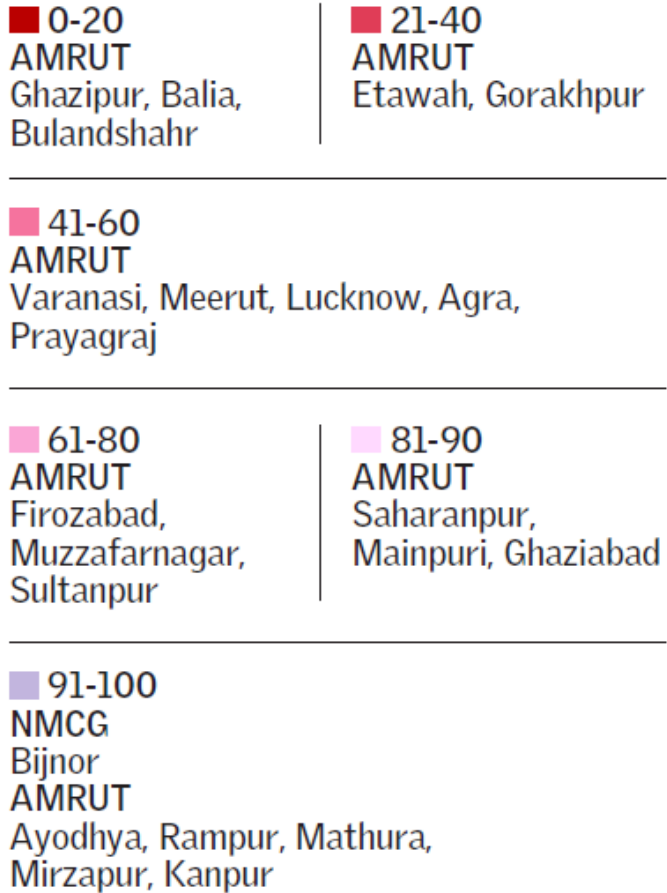
Construction Status of FSSM projects



Out of 40 FSTPs, 16 indicate a progress between 91-100 percentage points, while 21 FSTPs have shown an over 60 per cent progress.

Source: CSE assessment

Construction Status of FSSM projects



Out of the 22 co-treatment plants, six have progressed to a 91-100 per cent completion stage, while 12 indicate a more than 60 per cent progress.

Mathura Co Treatment Plant : Mechanical Dewatering



Planted Drying Bed technology : Chunar

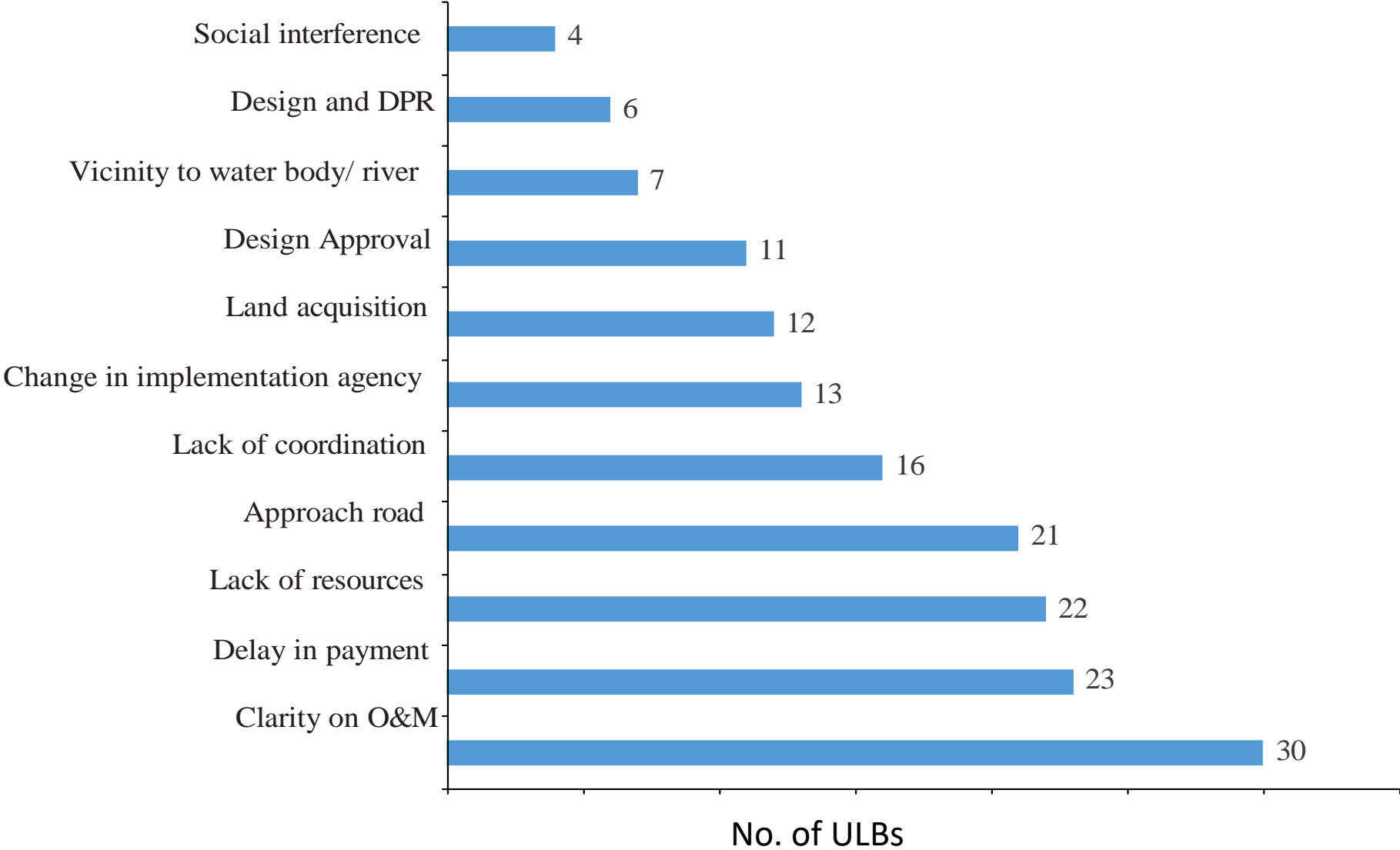


Pilibhit FSTP : TBF technology

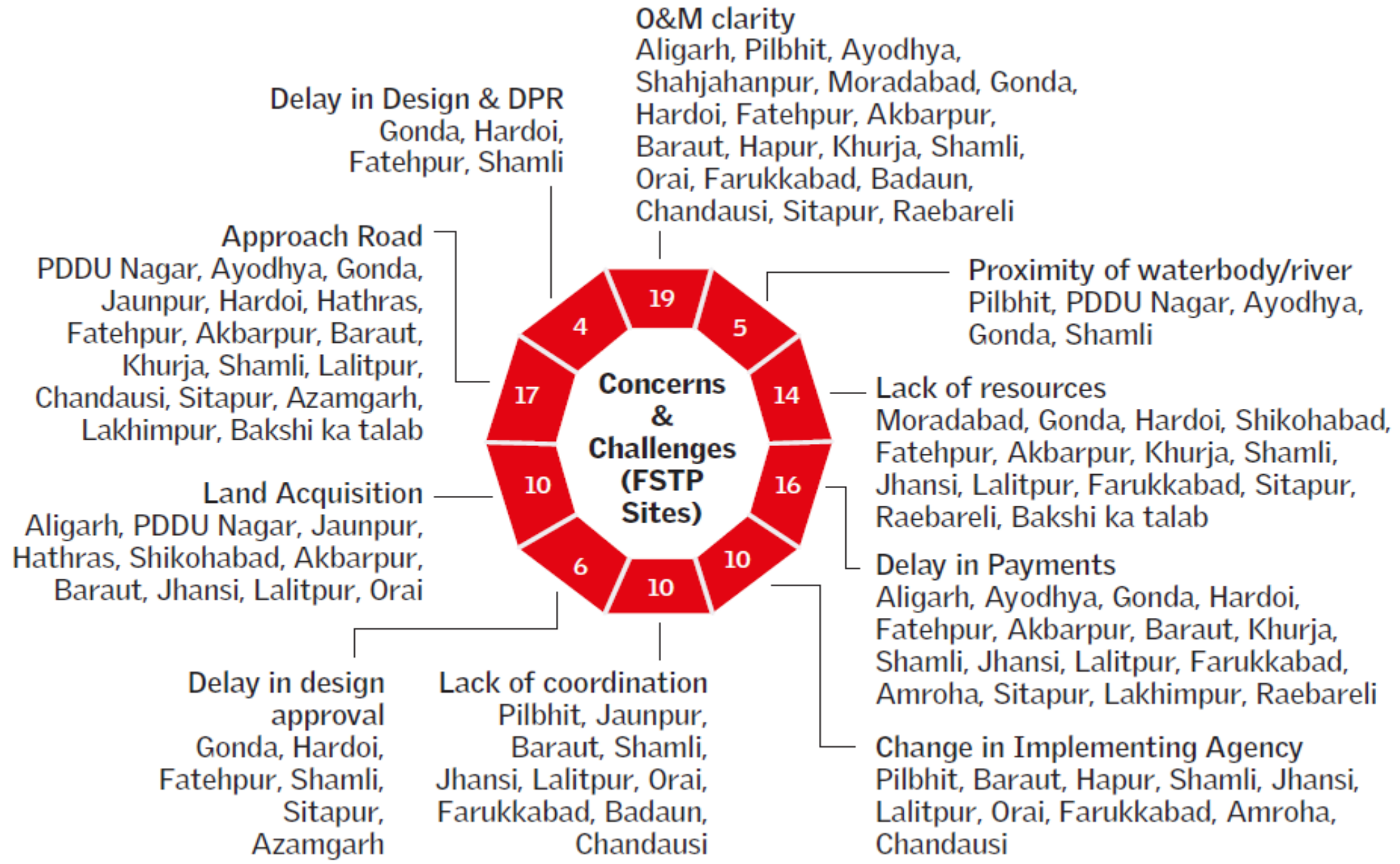


Issues and Challenges

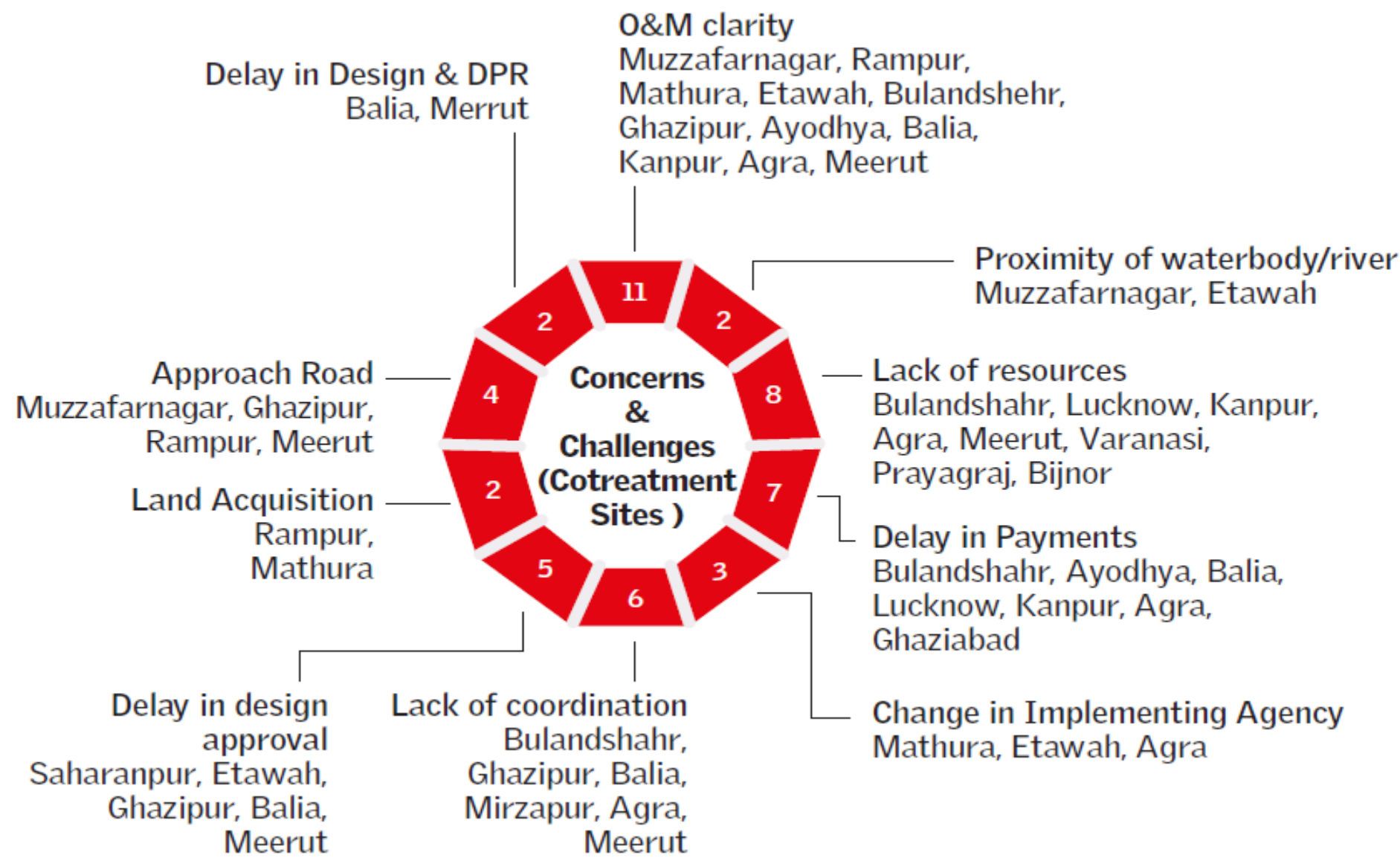
Challenges faced by ULBs in building septage management infrastructure



Infrastructure & O&M Issues- FSTPs



Infrastructure & O&M Issues- Co-treatment Plants



Recommendations

- 1 **Last mile challenge** : physical connectivity of roads-**Approach road**
- 2 **O&M Cost Recovery** by Private Operators is **simplified, timely** and **assured payments** based on work done
- 3 **Desludging services** should be **regulated** by the ULB. The ULB should also take the **responsibility** for the **registration** of **desludging vehicles**.
- 4 Assessments show that the **cleaning rate** of each household septic tank could range from **Rs 1000 to Rs 1500**, generating a reasonable profit for desludging operators.
- 5 **Hybrid systems** in upcoming projects **do not require** additional drying beds. The purpose could be served by installing a drying platform.
This will further help in reducing the capital expenditure as well as O&M expenditure.
- 6 **Standard Operating Procedure (SOP) for O&M of FSTPs and co-treatment** infrastructure should be developed and followed by plant operators, they should also be maintained at site level.
- 7 **Guidelines** and **FSM bye-laws** are important for successful FS operations.
The focus should be on incentives and recognition for good performance.

Where are We Now



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- **59 FSSM Plants** (39 FSTPs and 20 Co-treatment plants) out of **62 projects** that were initially tendered, are now fully **FUNCTIONAL**
 - Remaining **03 Projects** were **CANCELLED** due to land issues
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THANK YOU