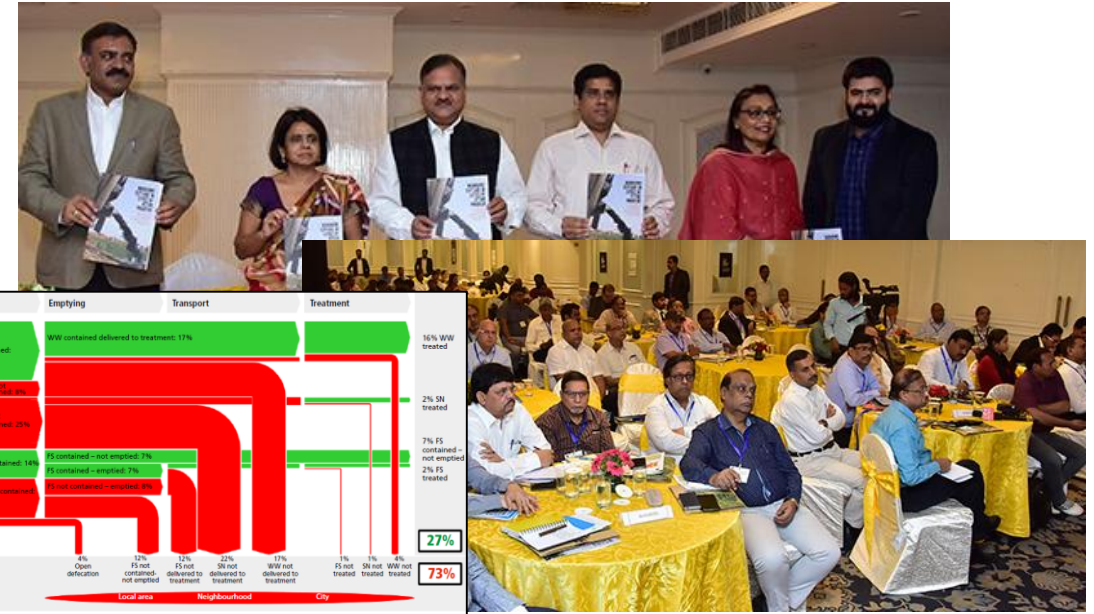
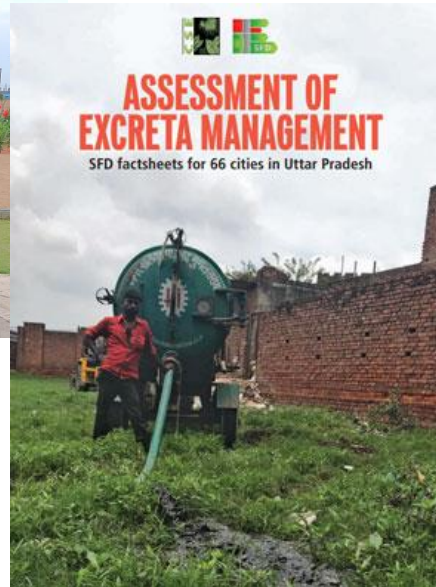




# Status Review 15<sup>th</sup> May 2019

CSE partnership with DoUD GoUP in supporting Effective Faecal Sludge and Septage Management for citywide sanitation



A summary of previous year activities, present status and plan for next year  
(May 2019- April 2020)

# Snapshot of CSE in Uttar Pradesh...

**(Sept 2016 - Apr 2018):** Capacity Building of State and Non-State Actors in Ganga Basin for **City Sanitation Planning**



**(Jan 2018 - Apr 2019):** Partnership with DoUD (U.P.) in Effective **Faecal Sludge and Septage Management** for Citywide Sanitation



# Snapshot of Uttar Pradesh FSSM Progress (2018-19)

- Operationalized FSTP in Jhansi
- Unnao FSTP under construction
- Several city have started registration and licensing of De-sludgers and Co-Treatment at Sewage Pumping Station / STP
- 5 Cities - ODF++, 26 Cities - ODF+ and 398 Cities - ODF (Certified by QCI)
- Funds allocated for the sector through AMRUT, SBM (U)
- Cities keen on initiating effective FSSM like Gangaghat, Saharanpur
- State FSSM Policy / Guidelines under review
- CSE – DoUD capacity building partnership under progress

# Programme Objective:

Strengthen capacities of UP state and city officials to implement city wide effective Fecal Sludge and Septage Management (FSSM) through State Level Programme Support Unit and City Level Technical Support Unit (2 – Deep-dive Cities)

MEMORANDUM OF UNDERSTANDING (MoU)

BETWEEN

DEPARTMENT OF URBAN DEVELOPMENT  
GOVERNMENT OF UTTAR PRADESH  
LUCKNOW, INDIA

AND

CENTRE FOR SCIENCE AND ENVIRONMENT  
NEW DELHI, INDIA

ON

“SUPPORT FOR EFFECTIVE SEPTAGE  
MANAGEMENT IN UTTAR PRADESH”

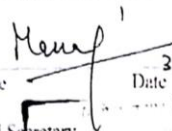
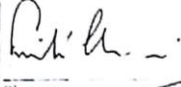

ARTICLE 10: COMMUNICATION AND REPORTING

All correspondence in connection with this MoU must be addressed to the following:

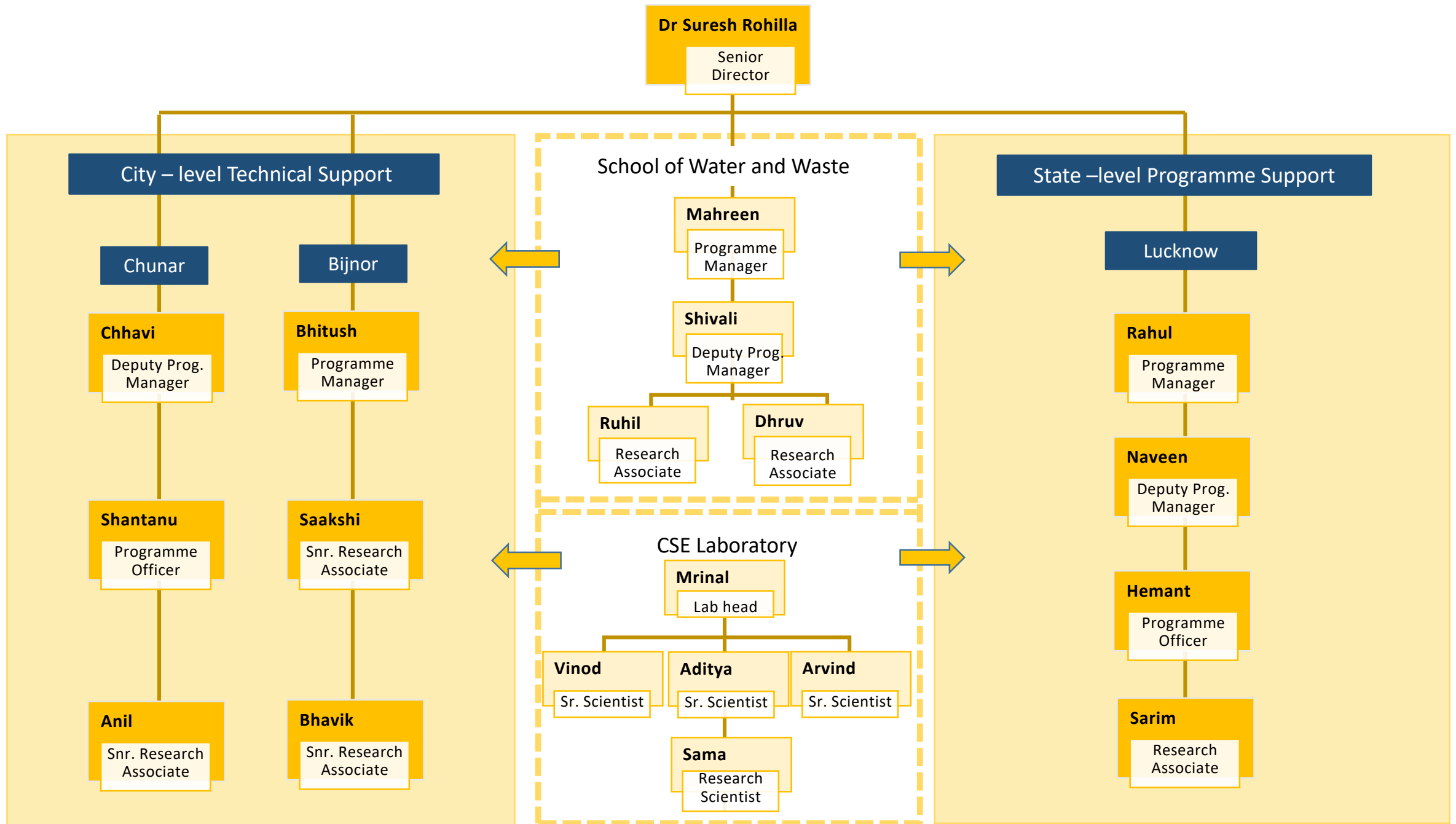
Principal Secretary Department of Urban Development, Government of Uttar Pradesh, 8 <sup>th</sup> Floor, Bapu Bhawan, Lucknow - 226001 Phone: 0522-2239467, 2214751	Director General Centre for Science and Environment 41, Tagh Lakabad Institutional Area New Delhi - 110062, India Phone: 011-29955124, 29956110, 29956394, 29956399
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

IN WITNESS WHEREOF, the foregoing represents the understanding reached between the Parties on the matter as referred to in this MoU and does not create any legally binding obligations upon the Parties, and the duly authorized representatives of the Parties affix their signatures below.

Signed in on this 30<sup>th</sup> day of January, 2018 for and on behalf of:

Department of Urban Development Government of Uttar Pradesh	Centre for Science and Environment
 Signature Date 30.1.18	 Signature Date 07.12.17
Principal Secretary	Director General
नगर विकास विभाग, राजगार एवं शहरी स्वच्छता कार्यक्रम विभाग उत्तर प्रदेश सरकार	
Witness VIVEK KR GUPTA	Witness TANUL JHA
H.S.N TIWARI	

CSE & DoUD  
– MoU  
Jan 2018



14 member dedicated team; recruiting 4 more people to strengthen State & City support

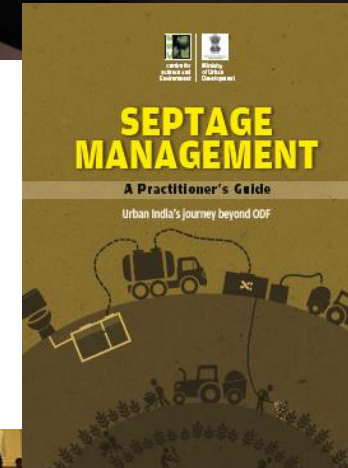
# State-Level Programme Support:

## Planned Vs Achieved (2018-19)



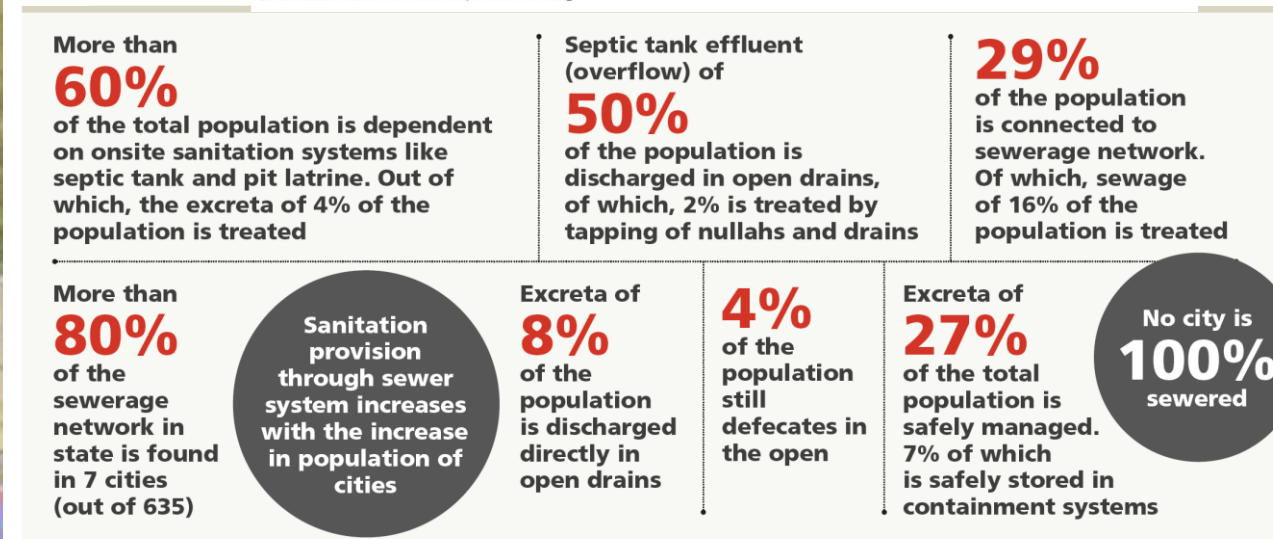
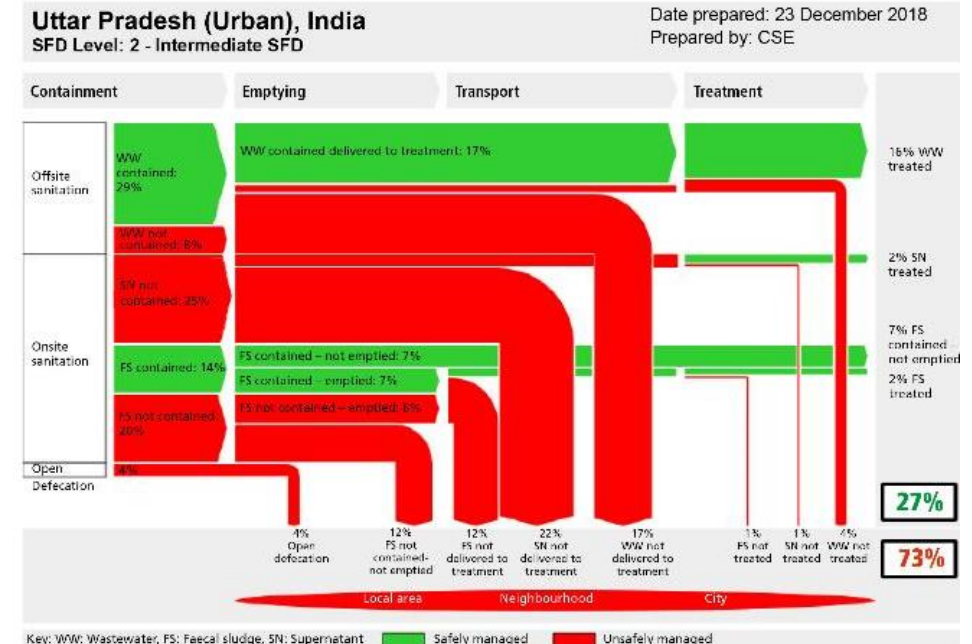
# STATE LEVEL SUPPORT: Planned Vs Achieved

Planned (Jan'18)	Status (May'19)
Develop <b>FSSM guideline / Policy</b> for City-wide sanitation.	<ul style="list-style-type: none"> <li>FSSM Guidelines – submitted <b>Feb'18</b></li> <li>Draft FSSM Policy – submitted <b>March'19</b></li> <li>Septage Management 'Practitioner's Guide' – distributed to all 60 cities</li> <li>Report on Co-Treatment being finalized</li> </ul>
<b>Setup helpdesk</b> for regular support for State and City Officials	PSU Office set-up in Gomti Nagar Lucknow with 4 member team to support the state. – <b>May'18</b>
Conduct <b>sensitization workshop</b> for state and non-state actors on the status and the path to ODF++	<p><b>1) State Workshop 'Planning and implementing effective septage management - Supporting city's journey beyond ODF and improved river health in U.P' in Lucknow – 22<sup>nd</sup> Oct'18</b></p> <p><b>2) International Knowledge Conclave: SFD Week – 'Designing and Implementing Affordable and Sustainable Citywide Sanitation for all' - 2-5 April'19</b></p>
<b>conduct trainings to augment capacities of state officials</b> to scale up City Sanitation Planning	<p>2 - State Trainings (<b>May'18 &amp; Dec'18</b>),</p> <p>1 - National Exposure Visit (<b>Dec'18</b>) and</p> <p>5 - State Officials nominated for International Exposure Visit.</p>



# Assessment of Excreta Management 66 Cities in U.P.

- To understand the gaps in sanitation across Ganga basin, Shit Flow Diagram for 66 major cities in the state of Uttar Pradesh are developed
- These SFDs are used to develop the **state level SFD** and **basin level SFD**



\*This study is done based on data collected by CSE in October, 2018



# Online Tools to support Citywide Sanitation

**SANi-KiT**  
PREPARING A CITY SANITATION PLAN

A web-based tool for preparing city sanitation plans



MOUNT is an online aggregator platform disseminating knowledge on sustainable technologies and good practices for wastewater and faecal sludge management.



# Supporting UPJN in FSTP Tendering in 52 cities

- Reached out to Private Agencies involved in FSTP.
- Tide Technocrates (FSTPs in A.P., Telengana & Maharashtra) and Ionex Envirotech Pvt Ltd (FSTPs in Odisha) applied for the tender.
- In view of the Tenders being cancelled, CSE has reached out to all the agencies and given suggestions on way forward.
  - A **Committee** to finalize structuring & conditions of the Tender and proposed Technology.
  - EOI & Presentation from Technology Providers – Option for **more Pilot Plants**
  - More **ULBs involvement** – Issues related to Emptying & Transportation, Land, Clearances etc
  - Option of **more Standalone FSTP tenders**.
  - **Co-Treatment**: Standalone tenders with complete information of the STPs

# City-Level Programme Support:

## Planned Vs Achieved (2018-19)

# CITY LEVEL SUPPORT (Focus City (1): Bijnor): Planned Vs Achieved

Planned (Jan'18)	Status (May'19)
Develop <b>Model City Sanitation Plan (CSP)</b> and frameworks for execution of CSPs	<b>CSP endorsed at City Sanitation Task Force Meeting held in Bijnor 13<sup>th</sup> Feb'19.</b>
Conduct research to assist city to develop <b>FSSM bye-laws and enforcement mechanisms for containment systems</b>	City FSSM Bye-laws is being finalized. <i>'State FSSM Policy' at state level would be an enabler for such interventions at city-level</i>
<b>Capacitate truck operators or de sludgers</b> to ensure that they decant the collected sludge in designated treatment sites	City-level training to capacitate planned for this year activity.
Provide technical support in setting up <b>Model Fecal Sludge Treatment Plan (FSTP)</b>	Feasibility for Co-Treatment at existing STP is being studied. Testing and Characterization of Faecal Sludge done.
Conduct City Sanitation Task Force (CSTF) meeting on a rolling basis to ensure the ongoing effectiveness and efficiency in the project's implementation	Conducted CSTF Meeting in 13 <sup>th</sup> Feb'19. More meetings planned for the coming year.





# CITY LEVEL SUPPORT (Focus City (2): Chunar): Planned Vs Achieved

Planned (Jan'18)	Status (May'19)
Facilitate <b>resource allocation</b> for sanitation of non-sewered areas	NMCG approved funding of Pilot FSTP project in Chunar
<b>Conduct techno-feasibility studies</b> and identify suitable FSSM technologies and technology providers	Detailed Project Report prepared and approved by NMCG. Technology selected. Identified potential Private vendor interested to implement the project. Conducted FS characterization of Chunar.
Establish processes and protocols for <b>resource recovery and local reuse</b> of wastewater	Demonstration of reuse of treated wastewater and treated sludge part of the FSTP project
	CSTF held on 26 Feb 2019 for sensitization regarding pilot FSTP and City-Level Guidelines on FSSM



# CSE's Faecal Sludge Testing Lab

A state-of-art, referral monitoring laboratory for testing wastewater and faecal sludge.  
Operational for 1.5 years

## *Trainings Conducted at CSE Lab*

*a) Basic Lab Training in FSSM: 2*

*b) Advanced Lab training in FSSM: 1*



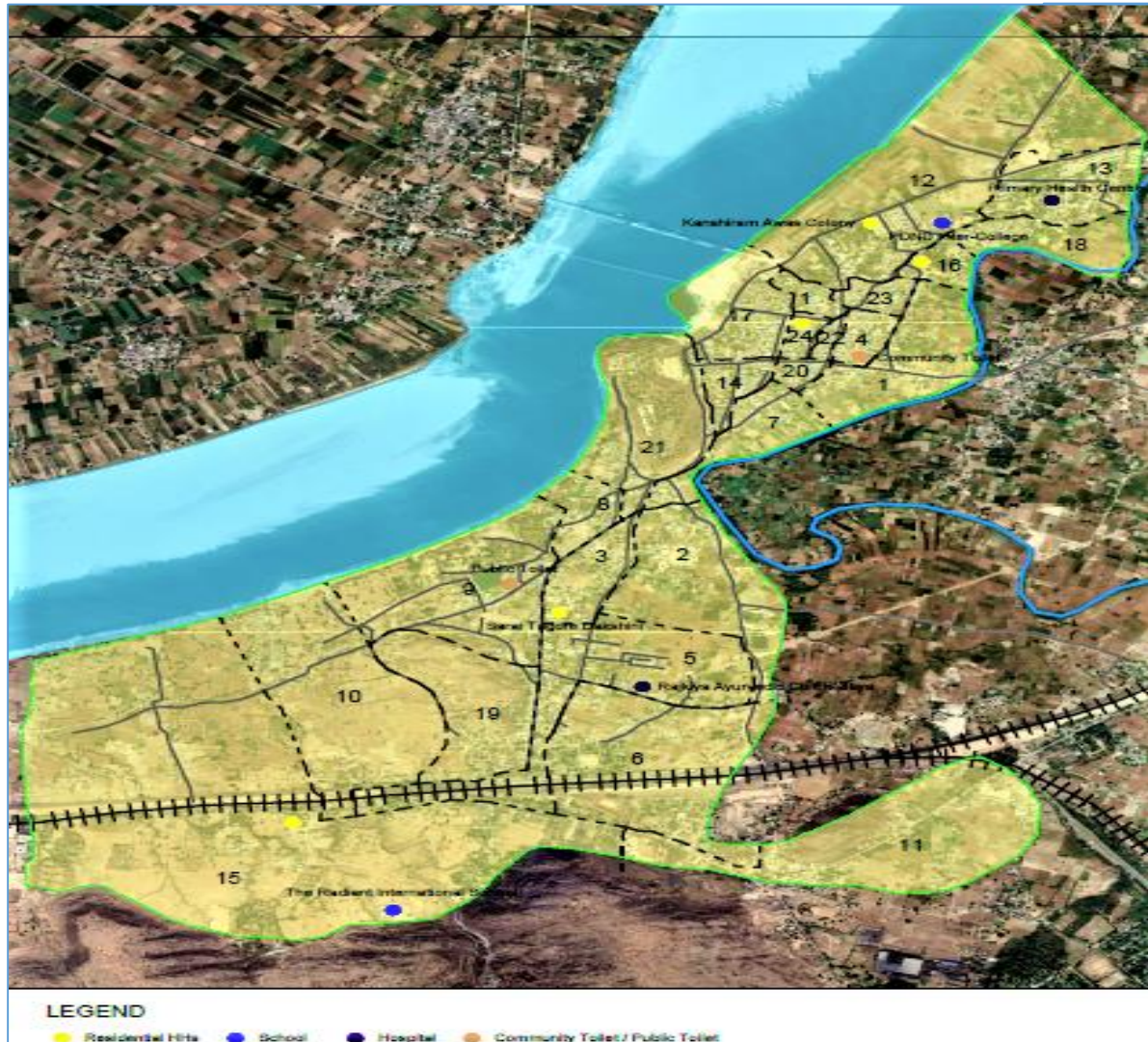
Hands-on training in Helminth testing  
(Advanced Lab trainings in FSSM)



Mr. Surendra Babar from Gomti Pollution Control Unit of UP Jal Nigam, receiving his participation certificate from Dr. Colleen Archer at the conclusion of Advanced Lab Training in FSSM

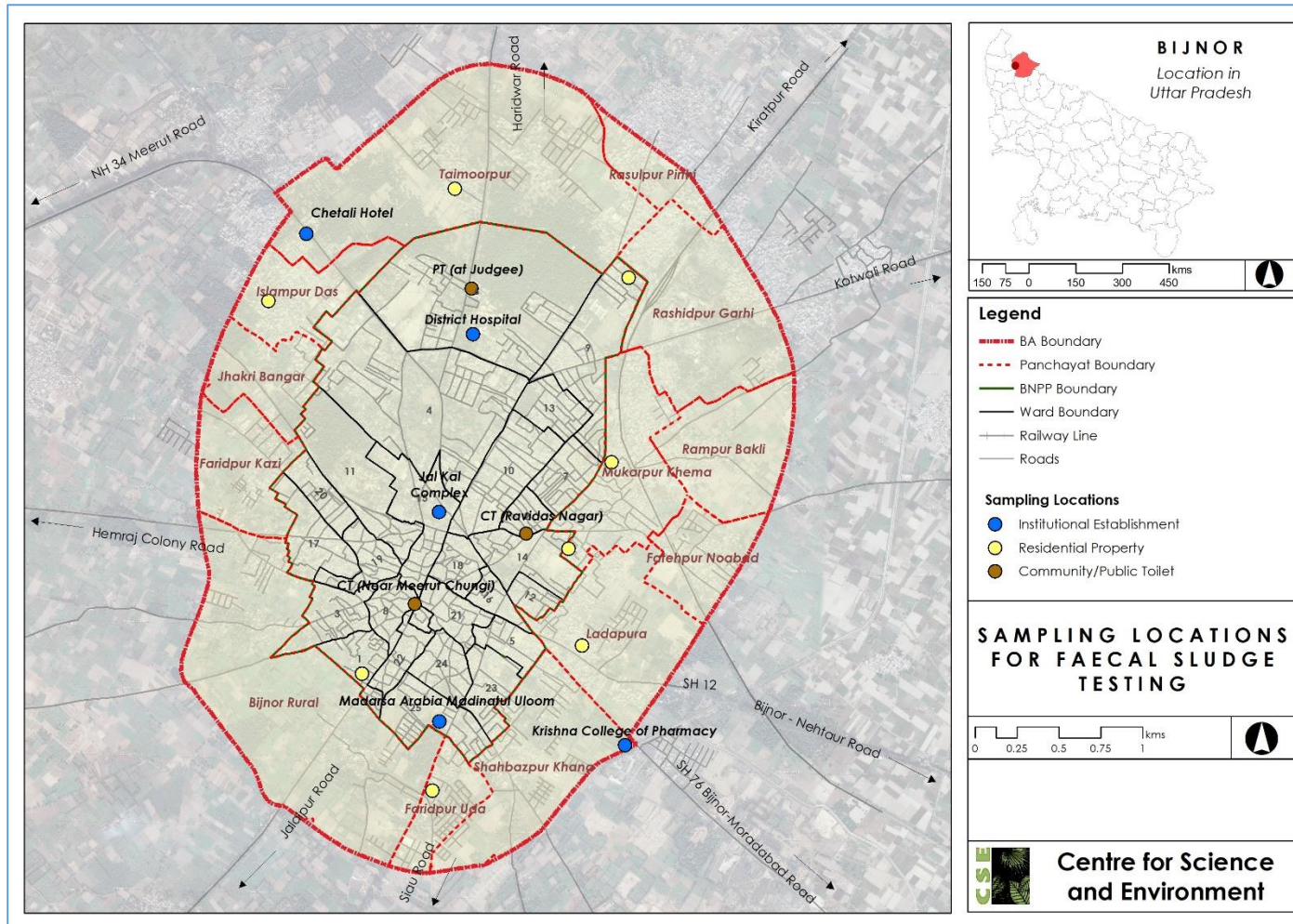


# Characterization of faecal sludge & septage in Chunar City





# Characterization of faecal sludge and septage in Bijnor City





# Test Results

Chunar

## TEST REPORT FORM

Date: Feb 4<sup>th</sup>, 2019  
Report ID: CSE/AAETI/EML/TRF/45

CSE Team Participating	Water Team & FSM Lab
Sample Identity	Sludge Samples from township of Chunar, UP
Number of samples	7 (From Chunar) + 1 (Composite sample prepared in Lab)
Samples collected/delivered by	Self-Collected
Date of sample submission at AAETI	Jan 18 <sup>th</sup> , 2019

### Result of Physico-chemical and Microbiological parameters in Fecal Sludge samples

S No	Sample Location	pH ± Error % (95% C.I.)	Moisture Content %	TS ± Error % (95% C.I.) (ppm)	COD ± Error % (95% C.I.) (ppm)	BOD <sub>5</sub> (5 days at 20°C) (ppm)	TKN ± Error % (95% C.I.) (ppm)	Ammoniacal N ± Error % (95% C.I.) (ppm)	Total Phosphate ± Error % (95% C.I.) (ppm)	Fecal coliform (MPN/100 ml)	Calorific Value (cal/g)
1.	PHC-C	6.8 ± 0.2%	96.6	40,400 ± 0.8%	71,700 ± 0.5%	3,790	1204 ± 2.4%	101.9 ± 0.5%	295.0 ± 2.8%	3.6x10 <sup>5</sup>	2709.0
2.	JKC-C1	6.6 ± 0.2%	96.7	32,160 ± 0.8%	67,950 ± 0.5%	5,800	1162 ± 2.4%	126.6 ± 0.5%	304.0 ± 2.8%	3.6x10 <sup>4</sup>	3200.1
3.	KAW-C	6.2 ± 0.2%	94.8	30,500 ± 0.8%	72,300 ± 0.5%	5,610	1064 ± 2.4%	110.9 ± 0.5%	182.0 ± 2.8%	4.3x10 <sup>5</sup>	3892.5
4.	TIT-C	6.5 ± 0.2%	98.1	38,020 ± 0.8%	83,400 ± 0.5%	5,930	1666 ± 2.4%	218.4 ± 0.5%	338.0 ± 2.8%	3.6x10 <sup>5</sup>	3887.9
5.	CT-C	6.8 ± 0.2%	95.0	60,960 ± 0.8%	100,800 ± 0.5%	3,730	1862 ± 2.4%	304.6 ± 0.5%	524.0 ± 2.8%	2.3x10 <sup>6</sup>	2779.7
6.	PTD-C	6.6 ± 0.2%	99.1	17,360 ± 0.8%	31,800 ± 0.5%	2,960	798 ± 2.4%	138.9 ± 0.5%	178.0 ± 2.8%	3.6x10 <sup>4</sup>	2784.1
7.	RIS-C	6.5 ± 0.2%	96.3	31,000 ± 0.8%	53,100 ± 0.5%	3,260	1106 ± 2.4%	149.0 ± 0.5%	319.0 ± 2.8%	3.6x10 <sup>4</sup>	2614.8
8.	COM-C	6.6 ± 0.2%	96.7	44,960 ± 0.8%	59,400 ± 0.5%		1266 ± 2.4%	164.3 ± 0.5%	305.7 ± 2.8%		3124.0

Bijnor

Environment Monitoring Laboratory  
A unit of Centre for Science and Environment  
Anil Agarwal Environment Training Institute  
Nimli, District Alwar, Rajasthan-301019  
**TEST REPORT FORM**

EML Form No.: 4

Date: Mar 2<sup>nd</sup>, 2019  
Report ID -EML/TRF/046

CSE Team Participating	Water Team & FSM Lab
Sample Identity	Sludge Samples from Bijnor, UP
Number of samples	11 (From Bijnor) + 1 (Composite sample prepared in Lab)
Samples collected/delivered by	Self-Collected
Date of sample submission at AAETI	Feb 8 <sup>th</sup> , 2019

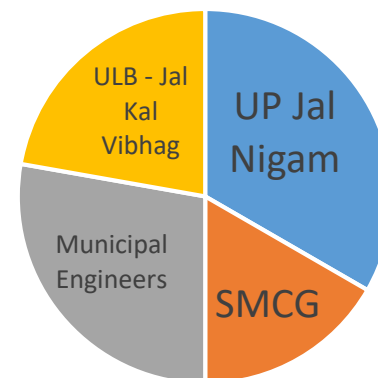
### Result of Physico-chemical and Microbiological parameters in Fecal Sludge samples

S No	Sample Location	pH ± Error % (95% C.I.)	Moisture Content %	TS ± Error % (95% C.I.) (ppm)	COD ± Error % (95% C.I.) (ppm)	BOD <sub>5</sub> (5 days at 20°C) (ppm)	TKN ± Error % (95% C.I.) (ppm)	Ammoniacal N ± Error % (95% C.I.) (ppm)	Total Phosphate ± Error % (95% C.I.) (ppm)	Fecal coliform (MPN/100 ml)	Calorific Value (cal/g)
1.	HCT-B	6.5 ± 0.2%	98.1	50,328 ± 0.8%	32,600 ± 0.5%	4,280	851.2 ± 2.4%	164.6 ± 0.5%	166.0 ± 2.8%	1.2 × 10 <sup>7</sup>	3424.0
2.	RCR-B	7.2 ± 0.2%	99.2	25,360 ± 0.8%	20,550 ± 0.5%	1,380	862.4 ± 2.4%	236.3 ± 0.5%	221.0 ± 2.8%	5.6 × 10 <sup>5</sup>	3950.5
3.	HMK-B	6.5 ± 0.2%	84.3	118,648 ± 0.8%	120,100 ± 0.5%	5,430	3080.0 ± 2.4%	116.5 ± 0.5%	656.0 ± 2.8%	1.5 × 10 <sup>6</sup>	2768.6
4.	HWV-B	7.3 ± 0.2%	96.7	31,398 ± 0.8%	35,900 ± 0.5%	4,630	1013.6 ± 2.4%	136.6 ± 0.5%	262.0 ± 2.8%	2.3 × 10 <sup>5</sup>	3534.0
5.	JLP-B	7.5 ± 0.2%	93.0	34,388 ± 0.8%	26,900 ± 0.5%	2,420	806.4 ± 2.4%	177.0 ± 0.5%	238.5 ± 2.8%	1.5 × 10 <sup>5</sup>	2696.1
6.	KCS-B	7.2 ± 0.2%	99.4	1,278 ± 3.1%	1,040 ± 1.7%	870	126.0 ± 2.4%	67.2 ± 0.5%	24.5 ± 2.8%	9.2 × 10 <sup>4</sup>	2276.7
7.	HFU-B	6.8 ± 0.2%	94.2	42,264 ± 0.8%	45,550 ± 0.5%	1,640	1428.0 ± 2.4%	227.4 ± 0.5%	458.0 ± 2.8%	2.3 × 10 <sup>5</sup>	3264.9
8.	CTR-B	6.9 ± 0.2%	99.2	2,638 ± 3.1%	6,200 ± 0.5%	630	210.0 ± 2.4%	82.9 ± 0.5%	56.5 ± 2.8%	4.3 × 10 <sup>5</sup>	2813.5
9.	DHR-B	7.4 ± 0.2%	98.9	9,766 ± 0.8%	16,200 ± 0.5%	1258	571.2 ± 2.4%	168.0 ± 0.5%	131.0 ± 2.8%	2.3 × 10 <sup>5</sup>	3643.6
10.	DMR-B	7.8 ± 0.2%	93.4	79,622 ± 0.8%	71,950 ± 0.5%	3850	2329.6 ± 2.4%	169.1 ± 0.5%	738.0 ± 2.8%	1.1 × 10 <sup>7</sup>	2364.1
11.	AVI-B	7.5 ± 0.2%	96.4	41,424 ± 0.8%	49,300 ± 0.5%	3010	1584.8 ± 2.4%	278.9 ± 0.5%	333.0 ± 2.8%	1.2 × 10 <sup>7</sup>	2815.7

# CAPACITY BUILDING SUPPORT TO STATE / CITIES OFFICIALS (2018-19)

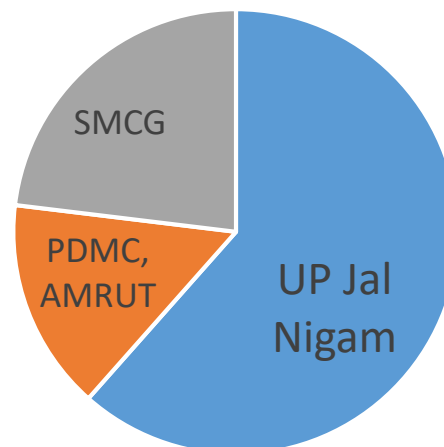
## 2 - State Trainings on Effective FSSM

### 1) 29-31 May'18 Training on FSSM at AAETI (Rajasthan campus) 16 U.P. Participants



UPJN	6 - Kanpur, Lucknow, Agra, Etawah, Aligarh
Municipal Engineer	3 – Ramnagar, Fatehpur, Ballia,
Jal Kal	4 – Kanpur, Varanasi, Allahabad, Mirzapur
SMCG	3

### 2) Dec'18 Training on FSSM in Lucknow 13 Participants



UPJN	8 No. (Unnao, Loni, Etawah, Bahraich, Luck.)
PDMC, AMRUT	2 No.
SMCG	3 No.



# Cross Learning Exposure Visit to Odisha (19-20 Dec'18)



## Field Visit

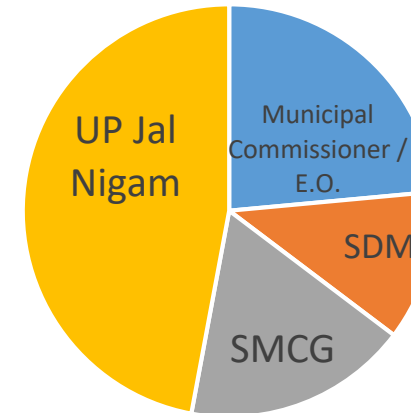
- FSTP in Bhubaneswar
- Co-Treatment of FS in Puri

## Knowledge sharing Sessions:

- Project Director, OWSSB
- Team Leader, State PMU



## Distribution of 17 participants



<b>SDM</b>	2 No. (Mirzapur, Bijnor)
<b>Municipal Com. / E.O.</b>	4 No. (Mathura, Jhansi, Bijnor & Chunar)
<b>UPJN</b>	8 No. (Unnao, Loni, Ettawah, Bahraich, Luck.)
<b>SMCG</b>	3 No.





# International Exposure Visits: FSSM

As part of BMGF funded initiative 'Multi-Country Twinning Programme: FSSM Knowledge Exchange'



## U.P. NOMINATIONS supported by CSE

1) Mr U.K. Tayal (PDMC, AMRUT)	Philippines
2) Mr Arun Kumar Tyagi, UP Jal Nigam (Bijnor)	Malaysia & Thailand
3) Mr Ashutosh Kumar Yadav, AE, UPJN, Ghaziabad	Indonesia
4) Mr S. K. Gupta, GM (GPCU), UP Jal Nigam, Lucknow	Malaysia
5) Mr Akanshu Singh, AE, UPJN, Ghaziabad	Malaysia

## Other Officers supported by CSE

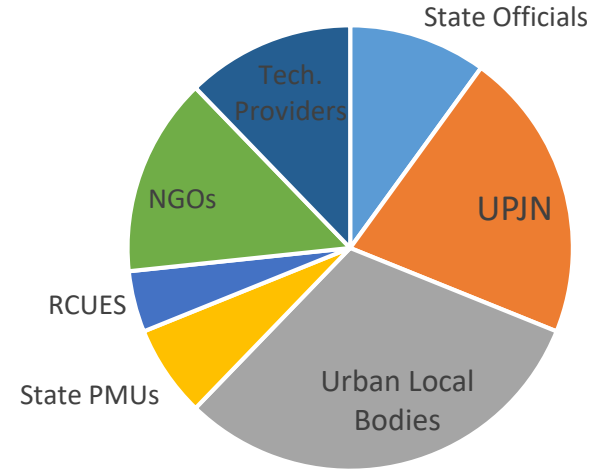
1) Mr Rupesh Srivastava, Director Projects, NMCG	Philippines
2) Nidhi Dwivedi, Project Officer (Technical), NMCG (Nodal Officer U.P.)	Malaysia



# State Workshop FSSM in Lucknow



## Total Participation - 78



## Key Note Speakers

Shri Manoj Kumar Singh	PS, DoUD
Ms Sunita Narain	DG, CSE
Shri G S Priyadarshi	SMD, AMRUT
Ms Madhu Krishna	Country Lead, BMGF

## Guest Speakers / Resource Persons

CEO WaterAid India, Rep. WaterAid Bangladesh, IWMI Sri Lanka, Technology Providers in FSSM, Remote session: IWK, Malaysia, BWD, Philippines, Rep. ASCI – supporting A.P.

## Launch of Reports & Tools



**SANi-KiT**  
PREPARING A CITY SANITATION PLAN





THE HINDU

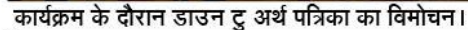


### Untreated sludge

The image is a composite of two parts. The left part is a scatter plot with 'POPULATION' on the y-axis (log scale: 50 lakh, 20 lakh, 10 lakh, 5 lakh, 2 lakh, 1 lakh, 50,000) and 'Sludge management' on the x-axis. Data points are labeled: 'Burst' (at ~50,000 pop, 'Not managed'), 'Aerobic' (at ~1.5 lakh pop, 'Managed'), 'Land' (at ~10 lakh pop, 'Managed'), and 'Group' (at ~25 lakh pop, 'Managed'). A text box states: '91% of sludge is unsafely managed in cities with 1.2-5 lakh population'. The right part is a diagram of a sewer pipe with a manhole. A label 'Lachar' points to the pipe. A text box states: '88% of sludge is unsafely managed in cities with >10 lakh population'. Below the manhole, another text box states: '91% of sludge is unsafely managed in cities with 5-10 lakh population'.

■ **एनबीटी, लखनऊ:** घरेलू टैंकों से निकलने वाले मल-मूत्र अपशिष्ट का बीओडी (बायोकैमिकल ऑक्सीजन डिमांड) 1000-20000 एम्पलडी होता है। जो नदियों के लिहाज से काफी हानिकारक है, लेकिन इसके खेतों में इस्तेमाल से फसल काफी अच्छी होती है। किसान

सीवेज सिस्टम से निकलने वाले अपशिष्ट के मुकाबले घरेलू अपशिष्ट लेना ज्यादा पसंद करते हैं।



हे। यह जानकारी मंगलवार वाटर ऐंड वेस्ट वाटर मैनेजमेंट के प्रोग्राम डायरेक्टर सुरेश रेहिला ने हजरतगंज स्थित एक निजी होटल में सेंटर फॉर साइंस ऐंड एनवायरमेंट कि नमामि गंगे प्रॉजेक्ट के तहत 2000 मिलियन प्रति दिन (एमएलडी) क्षमता वाले सीवेज ट्रीटमेंट को चलाया जाना था, लेकिन 31 अगस्त तक केवल 328

## Faecal Sludge Discharge Affecting Rivers

TIMES NEWS NETWORK

**Lucknow:** Despite construction of toilets and sewage treatment plants, lack of proper and safe disposal of faecal matter in fact continues to pollute rivers, including the Ganga, in Uttar Pradesh and negate the achievements and benefits of AMRUT and Namami Gange projects.


Around 73% of the excreta produced in Gorakhpur city is not collected properly or disposed off safely. In fact, out of 314 MLD of its faecal sludge, only 120 MLD is collected and most of it not treated.

Delhi-based public interest research and advocacy organisation Centre for Science and Environment studied the sanitation chain in 30 cities of UP, stressing on reach of sewerage systems, use of onsite facilities and to what extent is toilet

## IT'S A DIRTY PICTURE

**34** out of **60** AMRUT cities have zero efficiency for sewage collection & treatment

In Lucknow, Varanasi, Kanpur, **56%** of wastewater and sludge is managed properly.

 In cities with 5-10 lakh population, excreta of **82%** population is not managed properly

plants rather than on management and treatment of waste

"In absence of even a single completely sewered city, most households, institutions, establishments depend on onsite systems. And as there is no de-

राष्ट्रीय  
**सहारा**

## प्रदेश के शहरों में सीवर प्रबंधन की हालत खस्ता

**संस्कृत भाषा**

«...le quali si dividono per lo più in due parti: la prima, che si chiama "parte di base", e la seconda, che si chiama "parte di sviluppo". La prima parte è quella che si occupa di stabilire le regole del gioco, mentre la seconda parte è quella che si occupa di sviluppare le regole del gioco».

[illegible]

किसानों से जब जब बातें  
हुई बाँटनीं, वही बाँटनीं वही  
जलदिलीय का ही सकारा हो

about 4000 is  
about 4000 is  
about 4000 is

.....

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

अध्याय ३३ (अध्याय ३३) का अर्थ है कि यह एक  
अध्याय है जो एक अध्याय है जो एक अध्याय है  
जो एक अध्याय है।

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Journal compilation © 2006 by Blackwell Publishing Ltd

Chang et al. have not analyzed any cases involving patients with a history of stroke.

[illegible]

1. **Figure 10.1:**

...and the ...

**कलाती वी जीवितो व पालोपयोजना : जीवितो**

1.  $\frac{1}{2}$  of the way from the start to the end is 100 miles.

From 20 other articles we used 10 articles on factors that affect the use of the Internet and 10 articles on factors that affect the use of the Internet.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.



... ..

you'll all be fine.

*Journal of Interpersonal Violence* 27(10) 1896-1914  
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द्वितीयः प्रश्नः—  
 यदि अत्र विद्यमानं भू-संपत्ति-  
 मूल्यं १०० करोड रुपैयाँ भन्ने अनुमान गरियो भने, तब



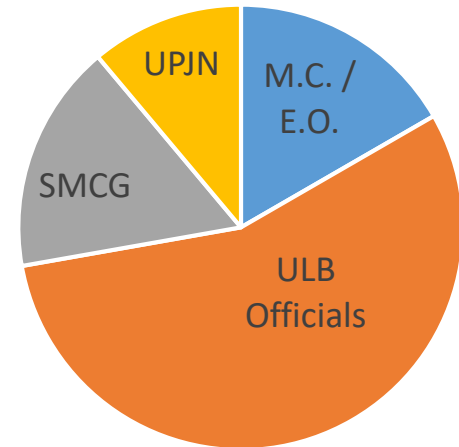
# International Knowledge Conclave: SFD Week (2-5 April 2019)



## Key Note Speakers:

- Durga Shankar Mishra, Sec, MoHUA
- Rajiv Ranjan Mishra, DG, NMCG
- Kala Vairavamoorthy, ED, IWA
- Dhesigen Naidoo, CEO, WRC
- Stefan Reuters, Director, BORDA
- Arne Panesar, Head of Prog., GIZ
- Madhu Krishna, Country Lead, BMGF
- Sunita Narain, DG, CSE

## U.P. Participation - 18



**Experts from  
Water Research  
Commission (S. A.),  
Columbia University (USA),  
Lancaster University (U.K),  
IIT Kharagpur as well as  
practitioners from Ghana,  
Senegal, South Africa, USA  
& Malaysia**





CSE Outreach on Citywide Sanitation  
through various communication  
collateral

# CSE OUTREACH ACTIVITIES IN CITYWIDE SANITATION

Type of Content	Number		Views
	Completed	Ongoing	
Films/Videos	6	3	18000
DTE Articles	4		80500
Articles in Annual Publications	2		10000
Articles / interviews / blogs on DTE Web	50		100000
Web – based tools	2		1000
Media - briefing	1		Sensitization of 25 hindi speaking journalists
Total	65	3	<b>&gt;2 Lakh Views</b>



**FSM in Delhi – A case study**

**(5.5K Views)**

15:14



**Can faecal sludge be used as an organic soil conditioner**

**(749 Views)**

9:36



**Faecal Sludge Management in Jhansi**

**(1.9K Views)**

8:16



**How to prepare a Shit Flow Diagram**

**(889 Views)**

12:52



**Centre for Science and Environment's capacity building initiative in the Ganga Basin**

**(39 Views)**

7:09



**How Neela Hauz, south Delhi's biggest water body was restored using natural process**

**(8.5K Views)**

6:20

**Blind spot in Namami Gange**  
By 2019, when Swachh Bharat Mission comes to an end, some 30 million septic tanks and pits would have been dug along the Ganga. It's time the Central, state and local sanitation programmes recognised faecal sludge management as a priority to ensure a clean Ganga



**Blind Spot in Namami Ganga**  
(22.5K Reads)

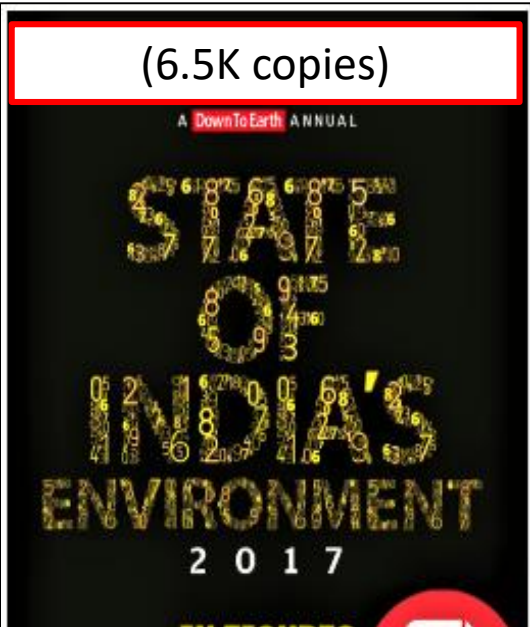


**Unholy Chase (Marghat mein Ganga)**  
(20K Reads)

**Urban shit: where does it all go?**  
India is staring at a big sanitation crisis and needs to reinvent its excreta disposal mechanism



**Urban Shit: Where does it all go**  
(38K Reads)



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ganga

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183 Search Results for ganga




The myth of a clean Kumbh

The NGT flagged poor solid waste management during the Kumbh Mela on the Ganga, which both the Centre and UP claimed to be 'swachh' or clean. But ...

May 09, 2019

SHARE




Namami Gange: 5 reasons why Ganga will not be clean by 2020

Even after 4 years and an allotment of Rs 22,000 crore, Modi's flagship programme is far from being a success

May 08, 2019

SHARE



Dirty Ganga: Funds down the drain in UP

Contrary to government claims, efforts to clean up the drains flowing into the Ganga have not borne results

April 29, 2019

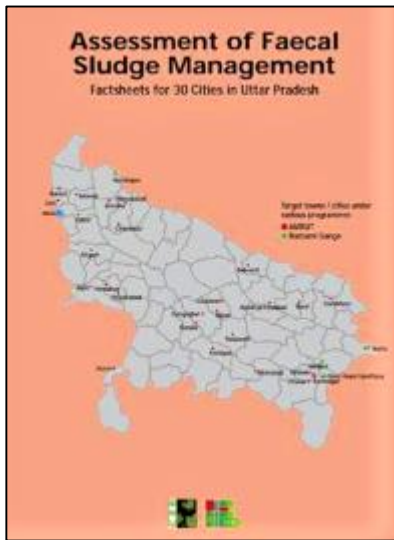
SHARE

**Around 50 articles/cartoon strips/interviews on Ganga uploaded on DTE web (>1 Lakh Views)**



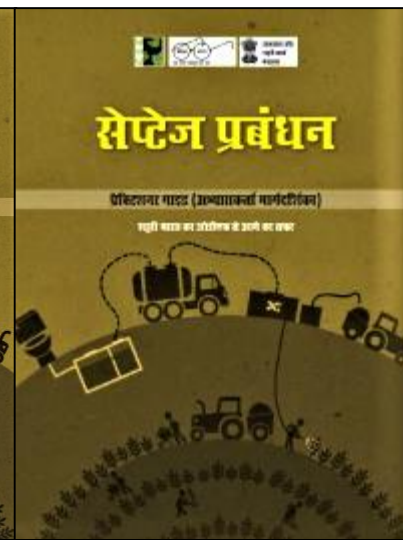
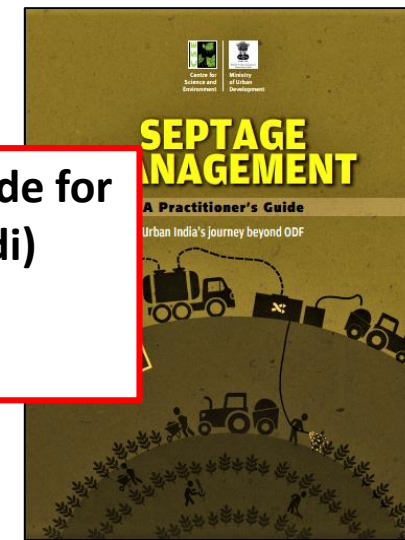
The event was inaugurated by Prasanta Kumar Mohapatra, Project Director, Odisha Water



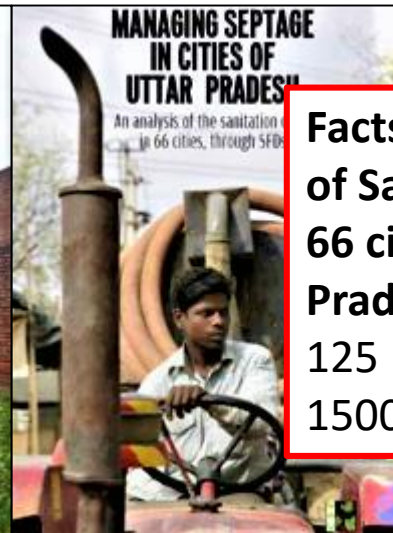
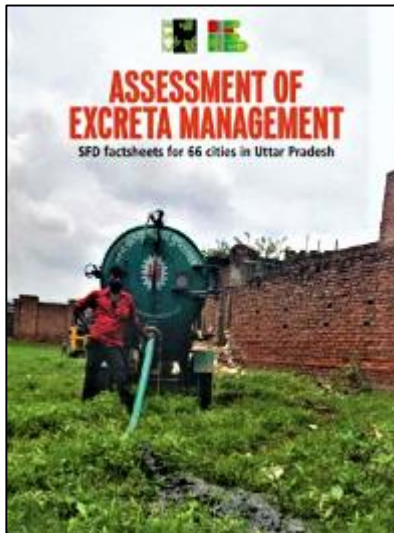


**Factsheets and analysis  
of Sanitation chain in  
30 cities of Uttar  
Pradesh**  
150 Hard Copies  
3000 Downloads

**Practitioner's Guide for  
FSSM (Eng. + Hindi)**  
1000 Hard Copies  
1000 Downloads

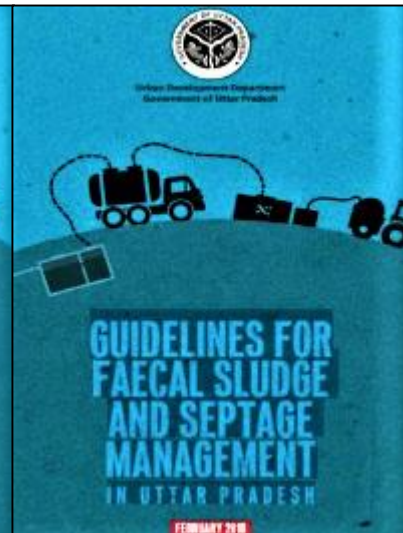
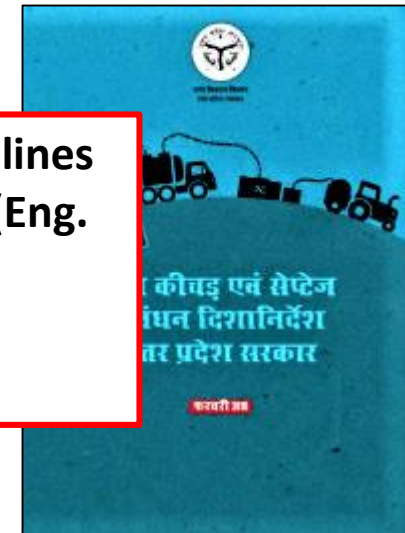


**Factsheets, reports,  
Guidelines prepared by CSE  
for FSSM**  
1500 Hard Copies  
7500 Downloads



**Factsheets and analysis  
of Sanitation chain in  
66 cities of Uttar  
Pradesh**  
125 Hard Copies  
1500 Downloads

**Draft FSSM Guidelines  
of Uttar Pradesh (Eng.  
+ Hindi)**  
150 Hard Copies  
2000 Downloads



# Action Plan 2019-20 for Uttar Pradesh: State and City-Level Support for Effective FSSM for Citywide Sanitation

# STATE LEVEL INTERVENTIONS (2019-20)

- Endorsement of **State FSSM Policy** with a focus on improved urban sanitation programming
- Institution of a **State Sanitation Task Force** for better convergence of policies, developing **Action Plan for scaling-up effective FSSM** across the State and monitoring the progress of the ULBs.
- **Model document:** City-level Guidelines, Co-Treatment, Byelaws & Business Model
- Develop a **Monitoring and Evaluation Framework** to track and evaluate ULB's progress to Citywide Sanitation.
- **State-Level Workshop** to operationalize a '**Forum of Cities that manage Excreta**' to track and evaluate '**Front Runner Cities**' in Effective Citywide Sanitation.
- Handhold 'Front Runner Cities' in interventions towards achieving Effective Citywide sanitation to become a model for other cities.



# State-Level Trainings/Workshops planned

	State Training	Dates
1	State Level Training on <b>‘Planning and Designing for Treatment of Faecal Sludge’</b> at AAETI campus	23-25 July, 2019
2	State Level Training for <b>‘Forum of Cities that manage Excreta’</b> (focus on regulation, enabling environment) at Lucknow / Delhi	16-17 December, 2019
3	State Level Training on <b>‘Non-sewered Sanitation’</b> at AAETI campus	12-14, February 2020

	Workshop	Dates
1	State level - Sensitization Workshop on <b>‘Forum of Cities that manage Excreta’</b>	15 September, 2019

	Exposure Visit	Dates
1	Exposure Visit – showcasing best practices in FSSM (Venue to be confirmed)	18-20 December, 2019

***CSE will be seeking nominations 4 weeks ahead of the training dates.***

# CITY LEVEL INTERVENTIONS (2019-20)

## Focus City (ONE) – Bijnor

(Focus on CSP Implementation)

- Advocacy to get FSSM By-laws notified
- City level training on designing of containment systems for masons/plumbers
- Pilot level Source Segregation in 3-wards in Bijnor.
- Technical Support for De-Centralized Waste Processing Plant
- Technical support for the implementation of pilot DWWT in Bijnor.

## Focus City (ONE) – Chunar

(Focus on FSSM)

- Set-up of Technical Support Unit (TSU) in Chunar
- Technical Support for Trenching for temporary Faecal Sludge disposal
- Technical Support for GPS tracking of Emptying and Transportation of Faecal Sludge in Chunar
- City level training on designing of containment systems for masons/plumbers
- Adoption of FSSM By-laws
- Supporting implementation of city level FSSM guidelines

# City-wide inclusive sanitation (CWIS)

## INEQUALITY

- Real barriers create inequalities based on gender, age and other social characteristics.

## BUSINESS AS USUAL

- Assumes everyone is starting from the same place
- Provides one size fits all solutions / treating everybody the same

## EQUITY

- Specific solutions to meet specific needs and to address structural inequality



PSU and TSU will incorporate the principles of CWIS is all advocacy, technical and capacity building support



# City-Level Trainings/Workshops planned

	City Level Training	Dates
1	City level training on designing of containment systems for masons/plumbers - Bijnor	September 2019
2	City level training on designing of containment system for mason/plumbers- Chunar	December 2019
3	City level training on emptying and transportation of faecal sludge	March 2020

	Workshop	Dates
1	City-level workshop in IEC / CWIS in Chunar	November 2019

***CSE will be seeking nominations 4 weeks ahead of the training dates.***

# Research Areas

## **State Level Publications**

1. Mainstreaming Co-Treatment of Faecal Sludge & Septage in STPs in Uttar Pradesh: Analysis on Co-Treatment Options in Bharwara STP Lucknow
2. Monitoring and Evaluation Framework: Tracking City Interventions in Safe and Sustainable Excreta Management
3. Model documents: City Level Guidelines for FSSM, CSP Guidelines, FSSM Bye-laws
4. Effective IEC for cities to mainstreaming FSSM

## **City Level**

1. City-level FSSM Guidelines for Chunar & Bye-laws for Bijnor
2. Business model for the implementation of short term CSP strategies for citywide sanitation solutions in Bijnor



## State Support Needed for Citywide Sanitation

Funding Support/action plan  
for Cities



Administrative /  
coordination support  
in cities



State FSSM Policy / FSSM  
Guidelines



**City-wide  
Sanitation**

# THANK YOU