

Overview of Faecal Sludge and Septage Management(FSSM)

National Consultation

Private Sector Engagement in FSSM
22nd Sept, 2017



Partners of the Platform

- 10 Institutes
- 7 Nodal National AMRUT Training Institutes
- Experts and Researchers, Universities
- Capacity Building on all aspects of FSSM



Urbanisation

Urbanization trends in India

- **Urban Population - 377 million (31.16 %)**
- **Total number of urban centers: 7935**
- **Statutory Towns (4041 nos.) are administered by Urban Local Bodies**
- **Census towns have trebled over a decade. Increase in Statutory Towns has been much slower.**

Type of Urban Units	2011 Census	2001 Census
1. Towns:	7,935	5,161
(a) Statutory Towns	4,041	3,799
(b) Census Towns	3,894	1,362
2. Urban Agglomerations	475	384

Census Towns are administered via rural administration – provision of urban services not mandatory in these areas

What is Faecal Sludge ...

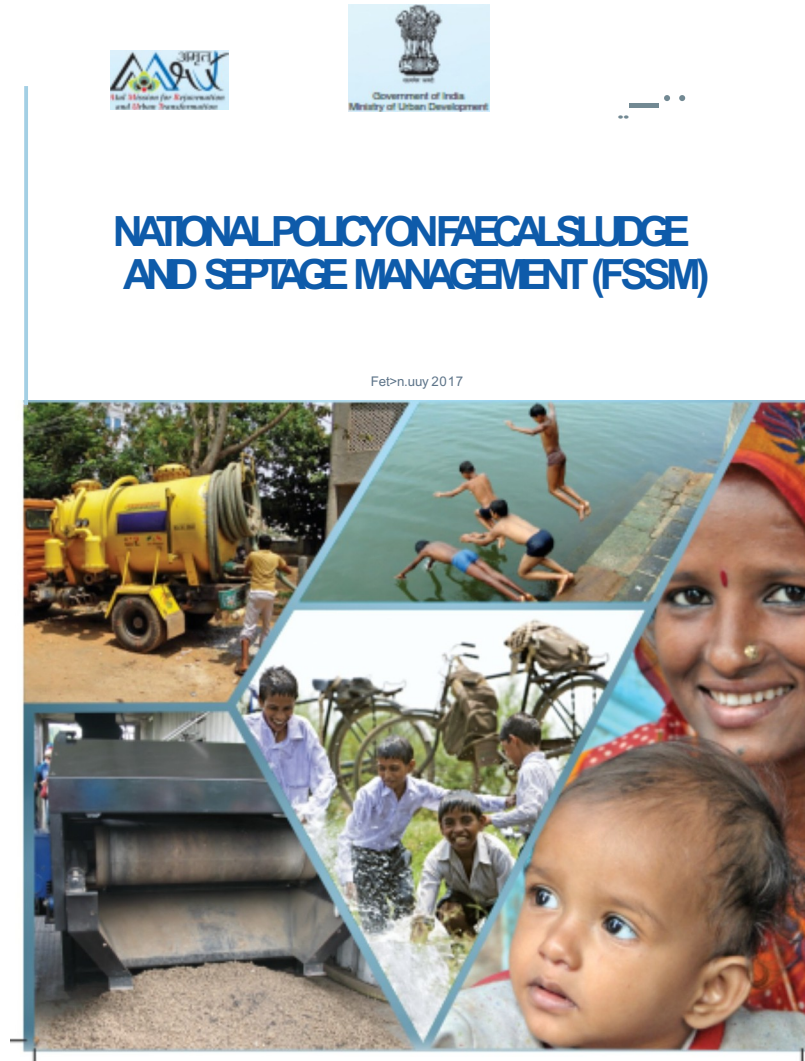
"Faecal sludge is the solid or settled contents of pit latrines and septic tanks.

Faecal sludge (FS) comes from onsite sanitation system such as pit latrines, non-sewered public ablution blocks, septic tanks, aqua privies, and dry toilets."

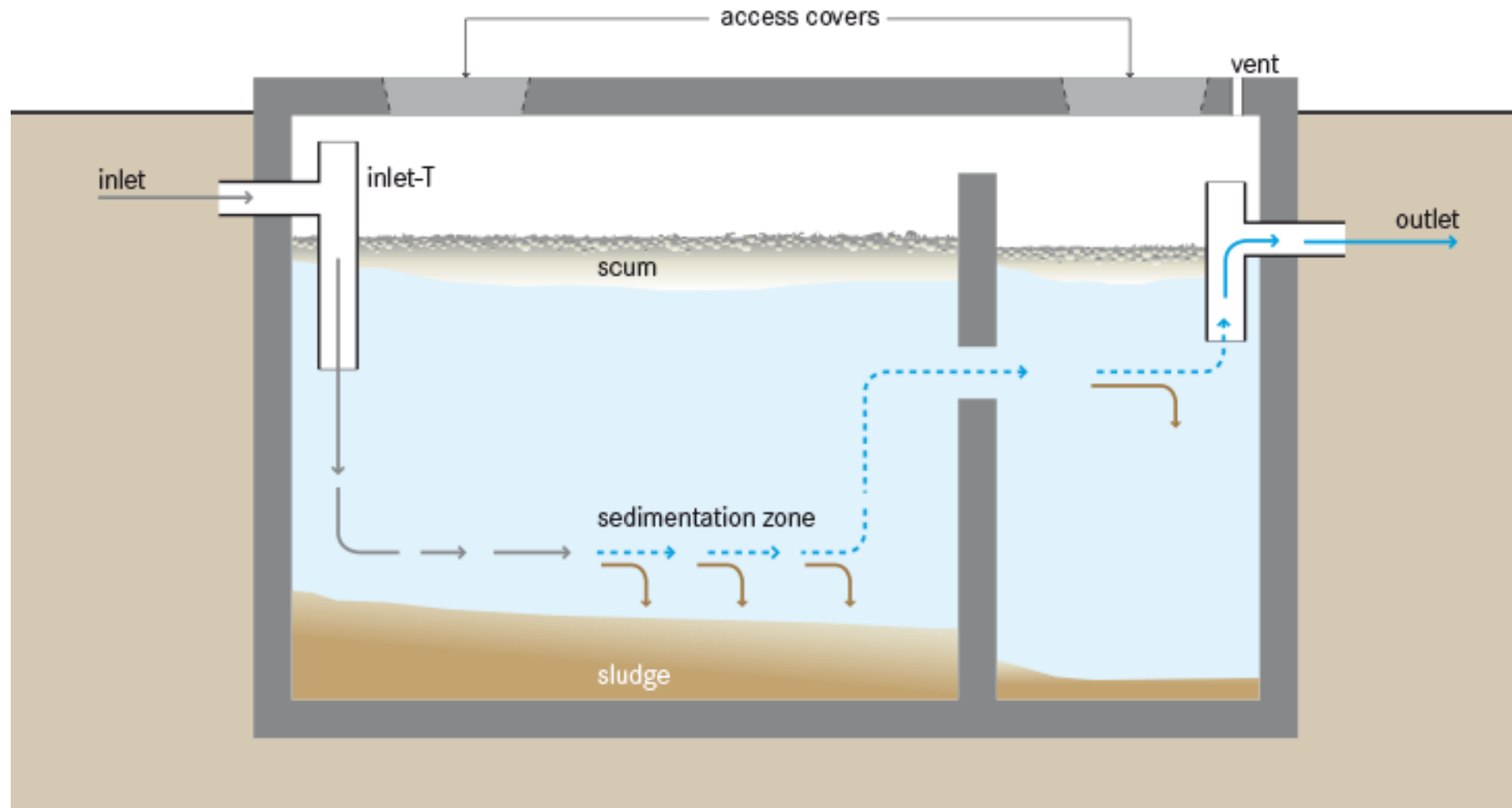
What is Septage ...

"It is the liquid and solid material that is pumped from a septic tank, cesspool, or such onsite treatment facility after it has accumulated over a period of time.

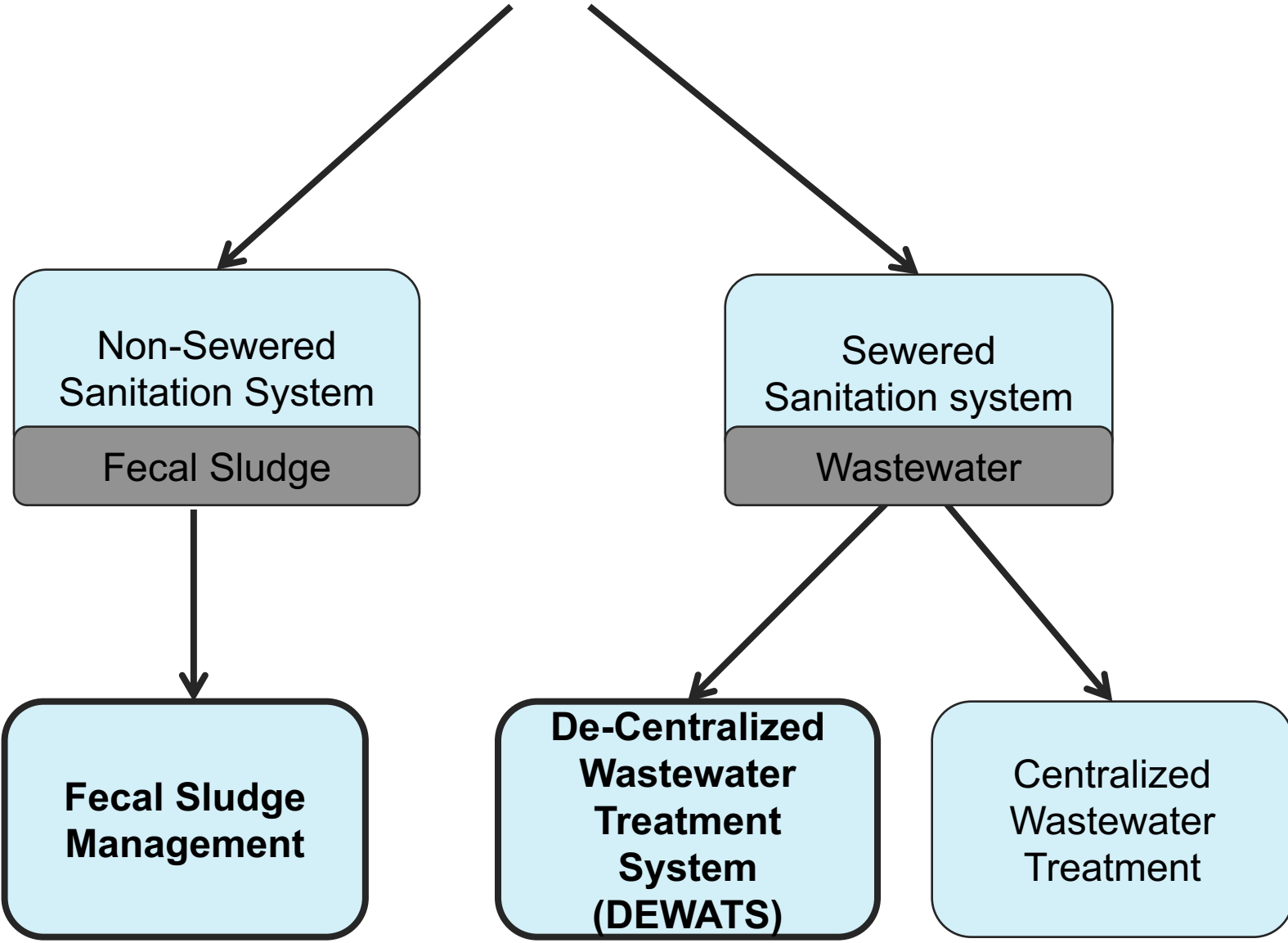
Septage is the combination of scum, sludge, and liquid that accumulates in septic tanks".



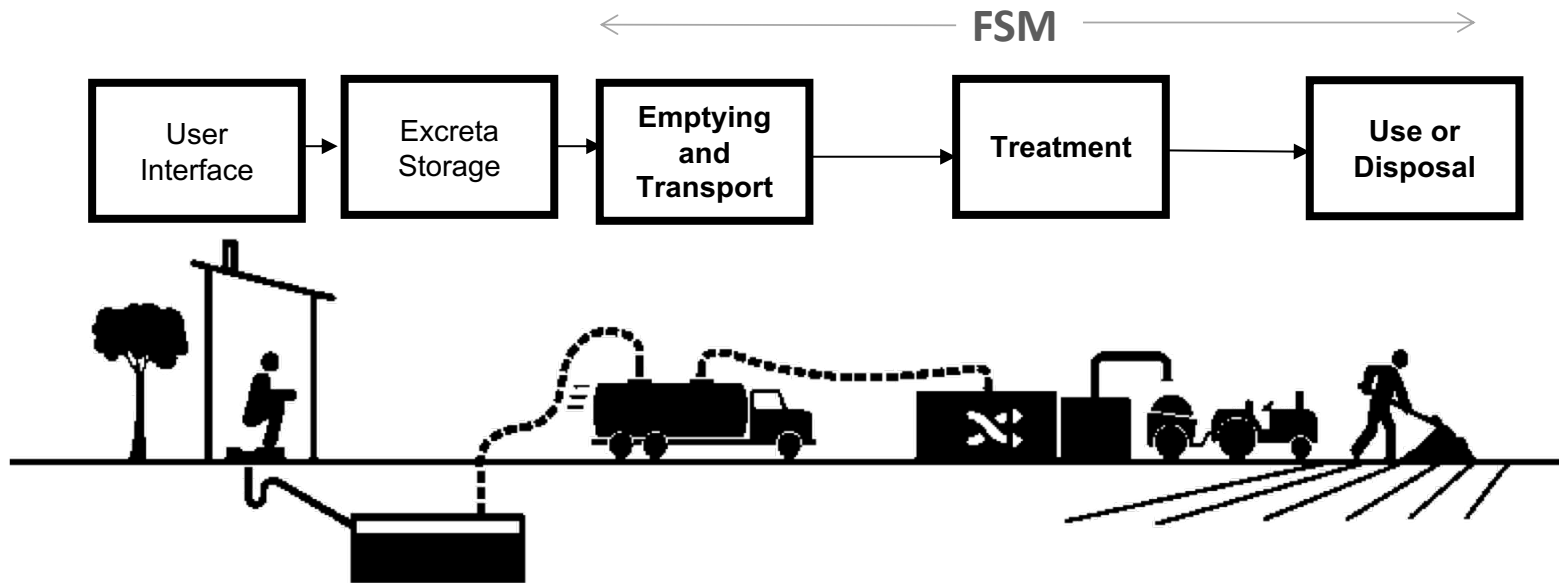
Septic Tank



Sanitation Systems

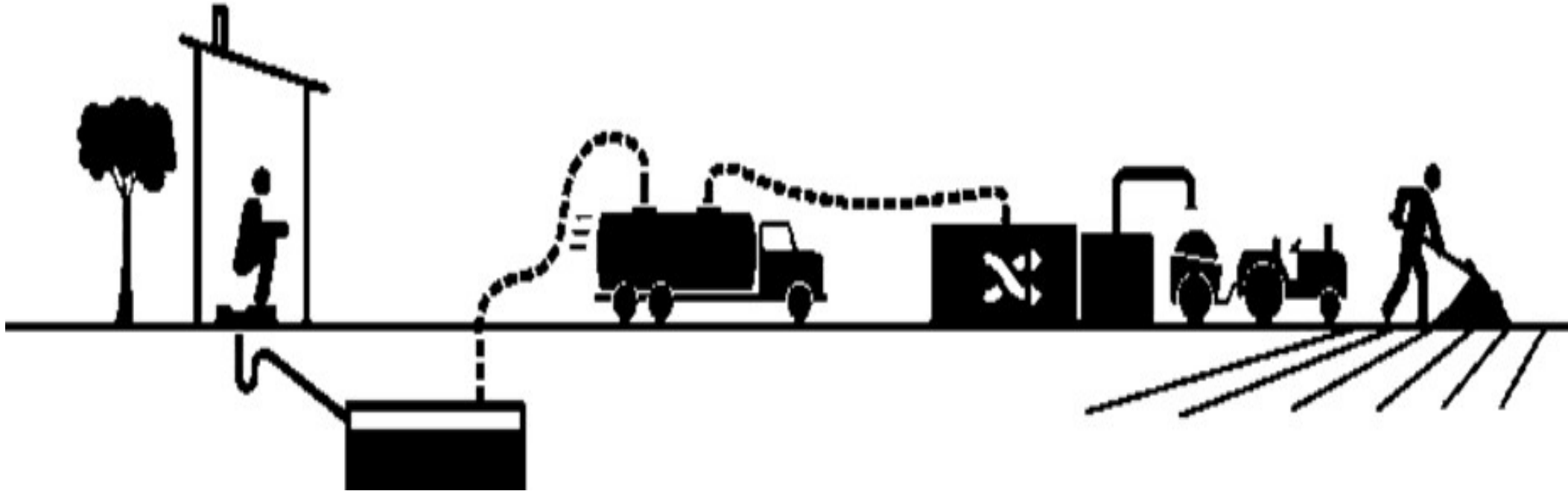


Fecal Sludge & Septage Management

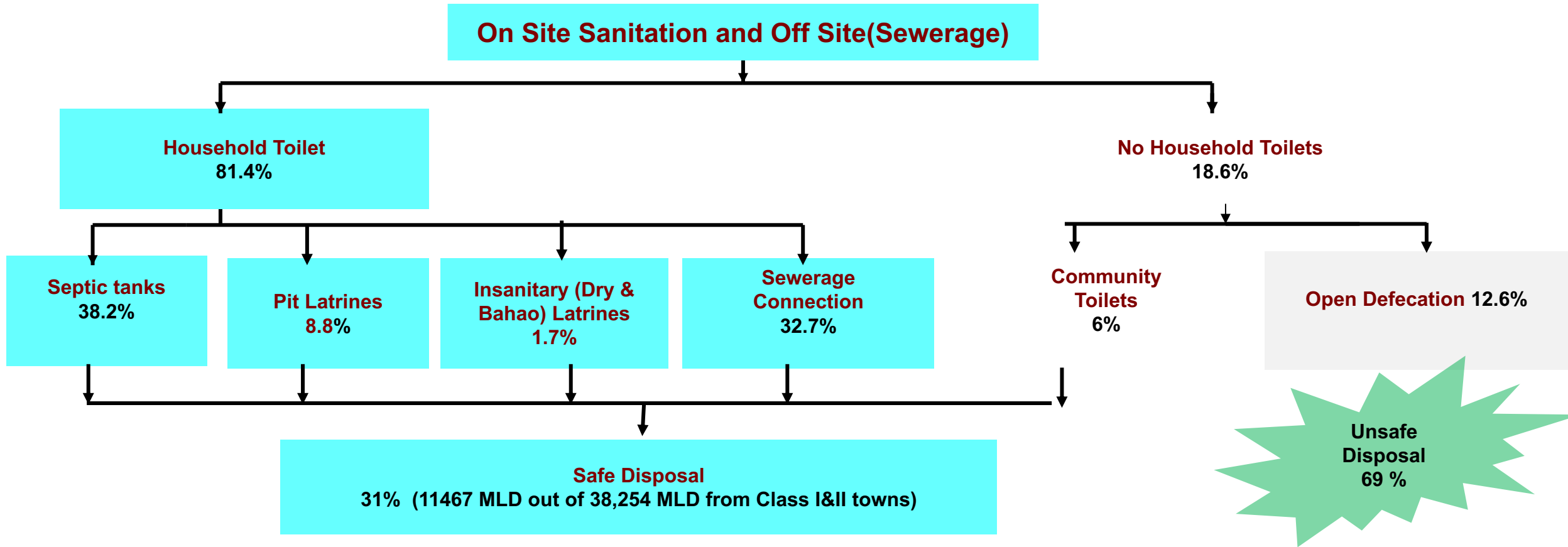


Sanitation Value Chain

FSSM Value Chain



Urban Sanitation Situation in India (Census 2011)

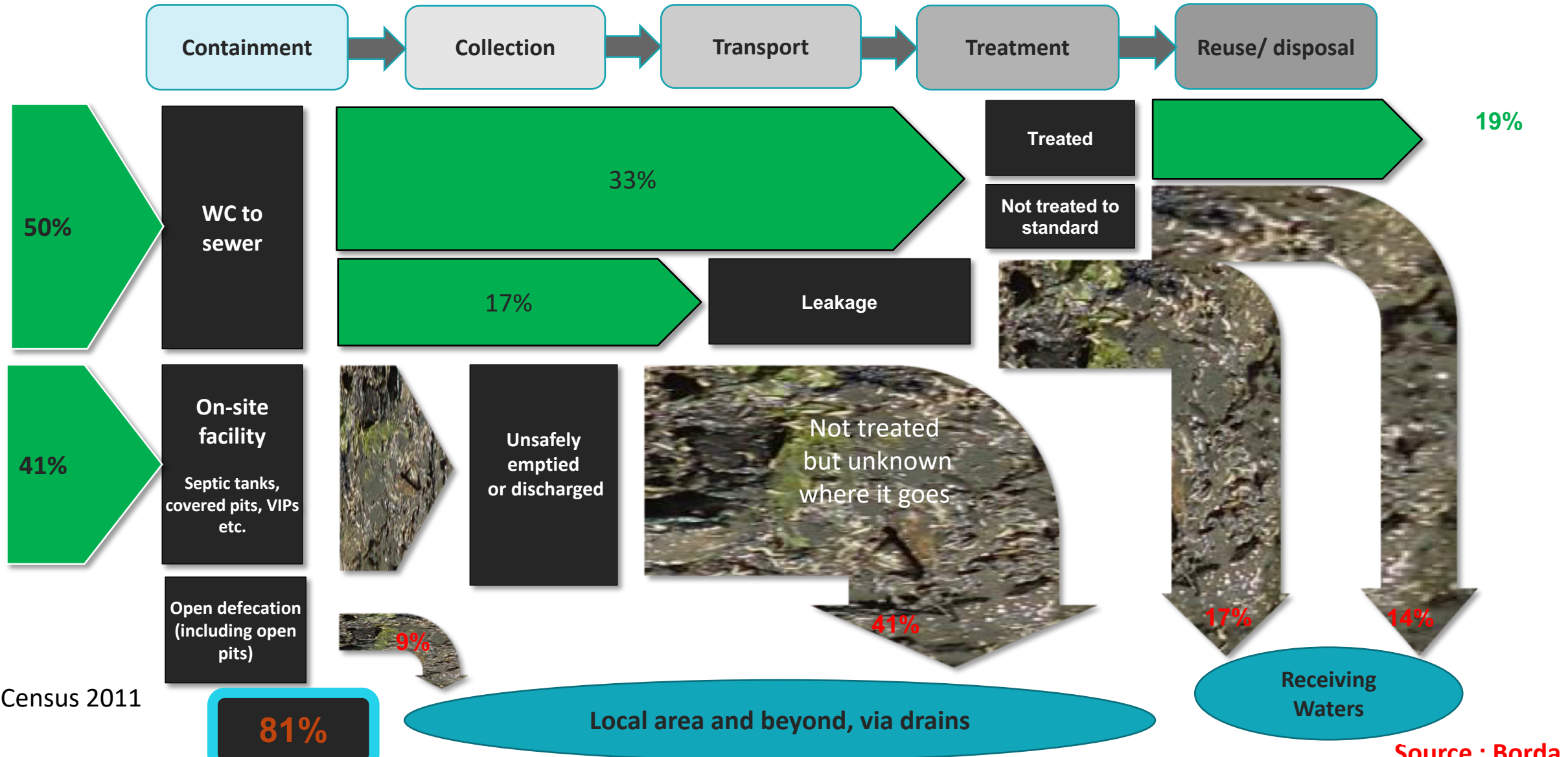


- 75% of fresh water resource which is being used for drinking purpose is contaminated.
- Sewage contributes 60% of total pollution load.
- **93% of total domestic wastewater is generated in Class-I cities.**

Ref.: CPCB Report, 2009

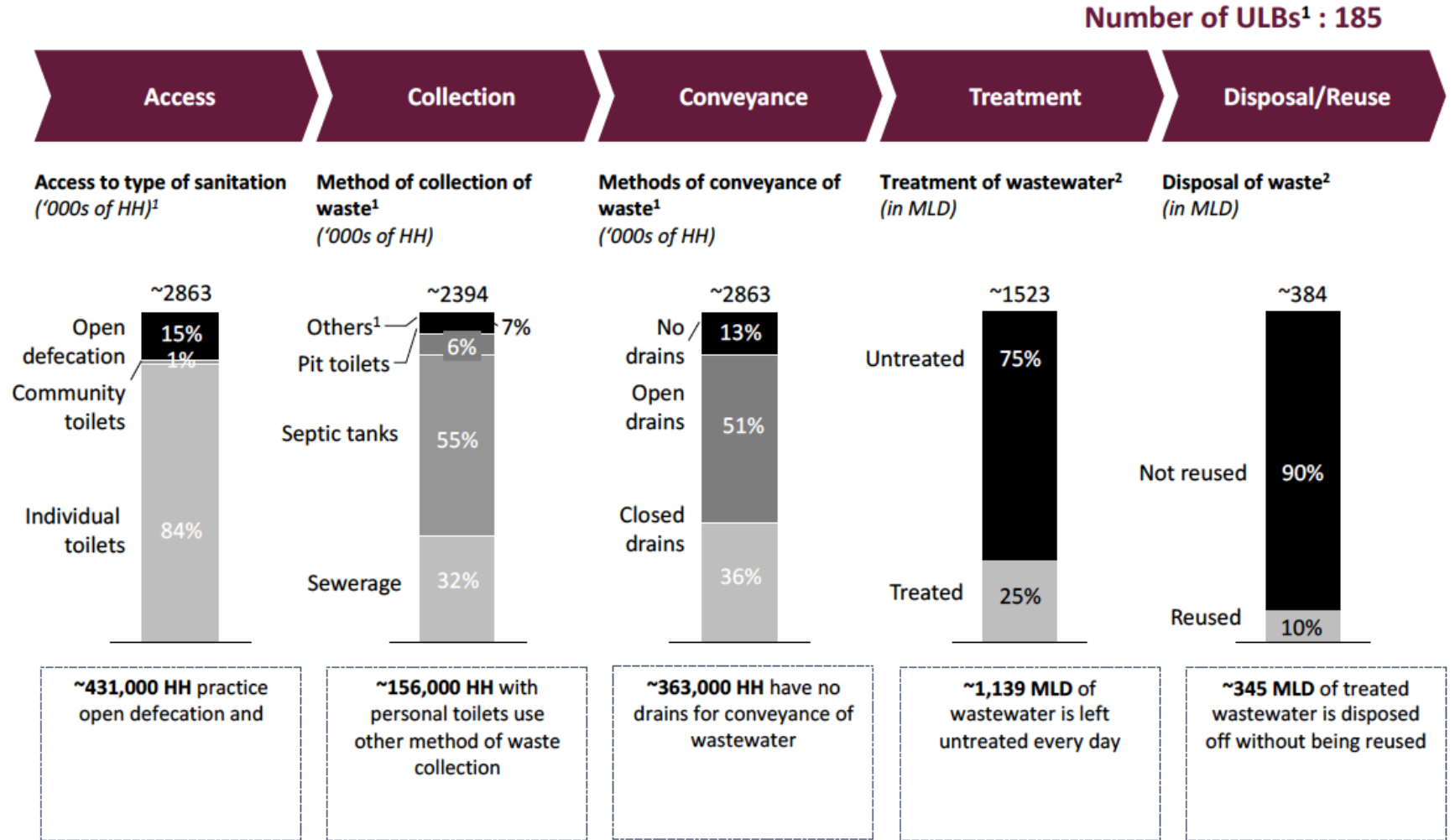
Shit Flow Diagram, India 2011

Sewer coverage	No of Cities	% of population
<10 %	191	16.45%
10 - 30%	158	20.10%
30 - 60%	75	24.22%
>60%	78	39.23%



Urban Sanitation Situation in Rajasthan:

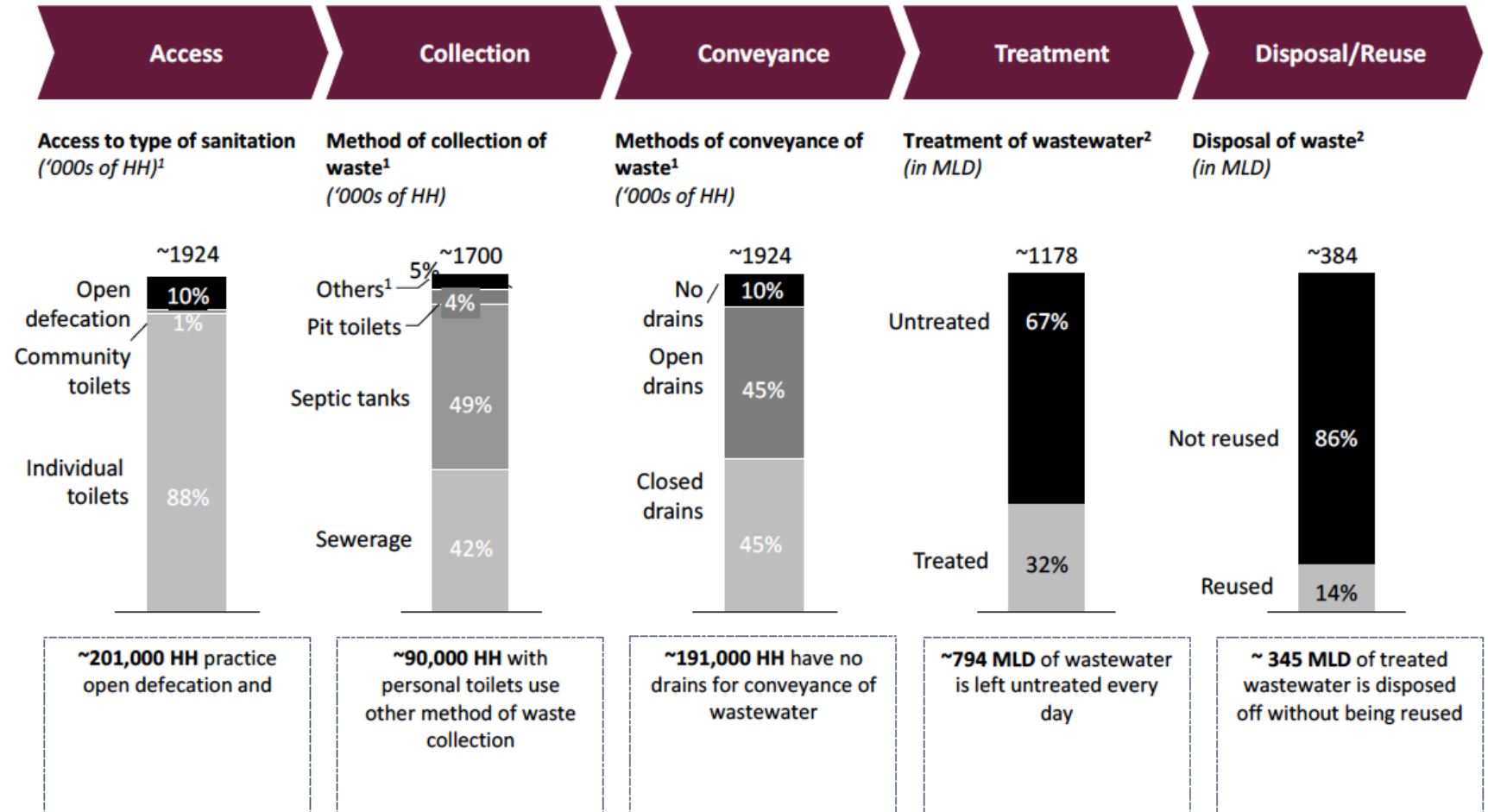
Significant gaps exist across the sanitation value chain in Urban Rajasthan



Source:

1. Census 2011 – Tables on Households Amenities
2. CEPT Analysis using information from (i) Draft Note on State Sewerage & Waste Water Policy – 2015, Department of Local Self Government, Government of Rajasthan (http://www.ruifdco.rajasthan.gov.in/Content/Water_Policy_Draft_CMAR_06102015.pdf); (ii) Inventorization of sewage treatment plants, Central Pollution Control Board -2015 (http://www.cpcb.nic.in/upload/NewItems/Newitem_210_Inventorization_of_Sewage-Treatment_Plant.pdf); (iii) Service Level Benchmarking Gazette Notification 2013-14, (<http://cmar-india.org/Downloads.aspx?id=13>)

Number of ULBs¹ : 29

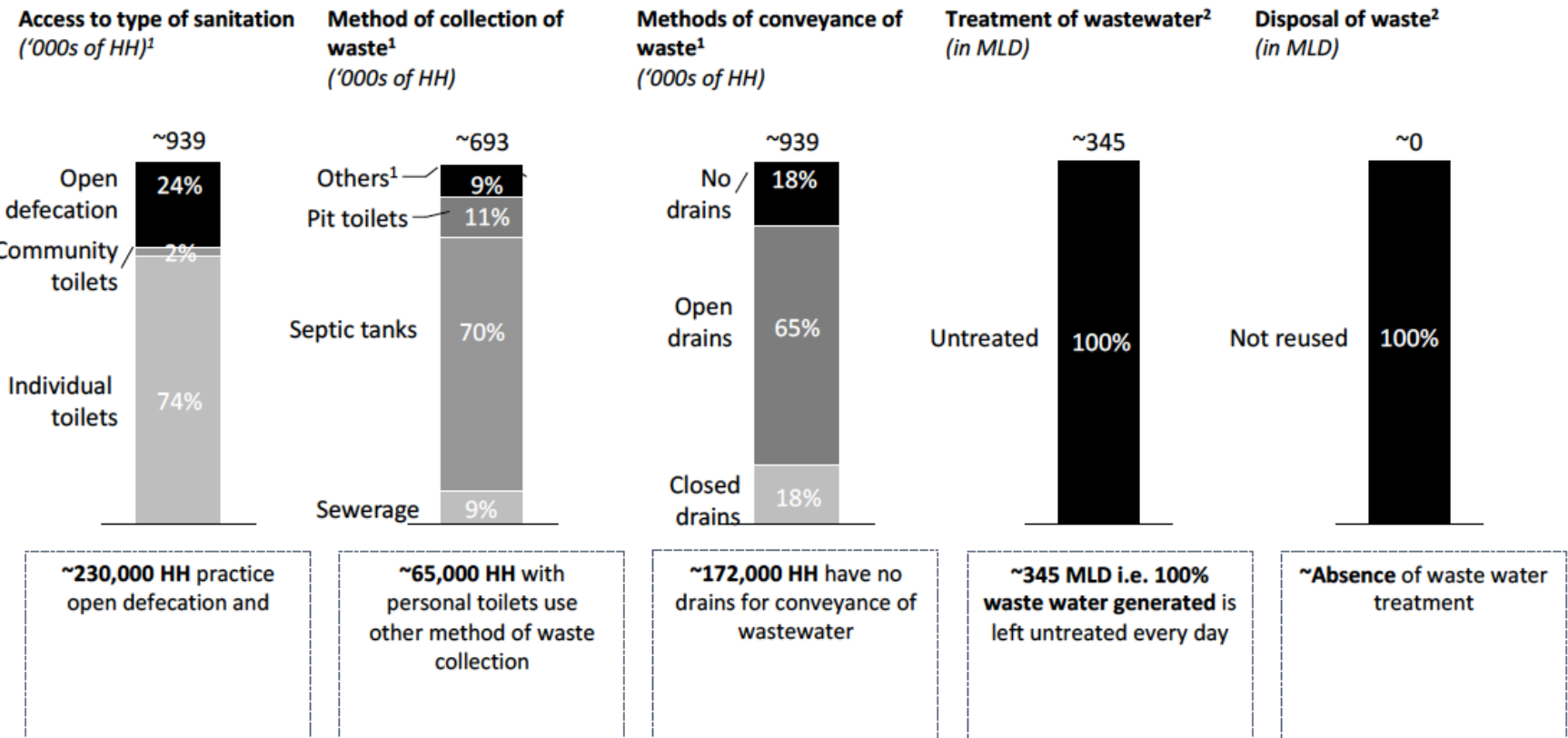
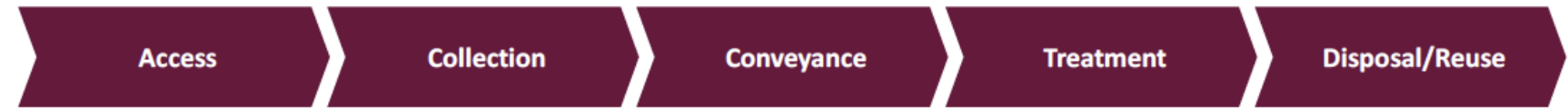


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Gaps across the sanitation value chain: AMRUT Cities of Rajasthan

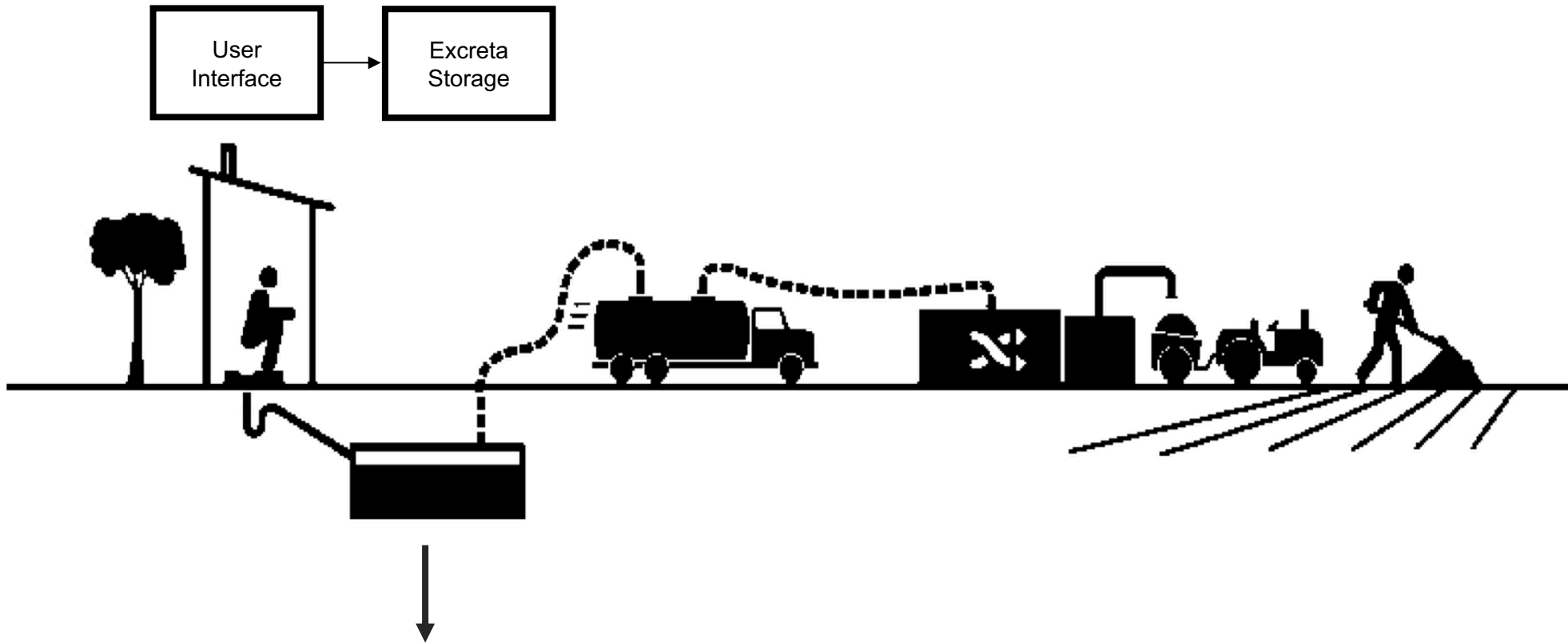
Number of ULBs¹ : 156



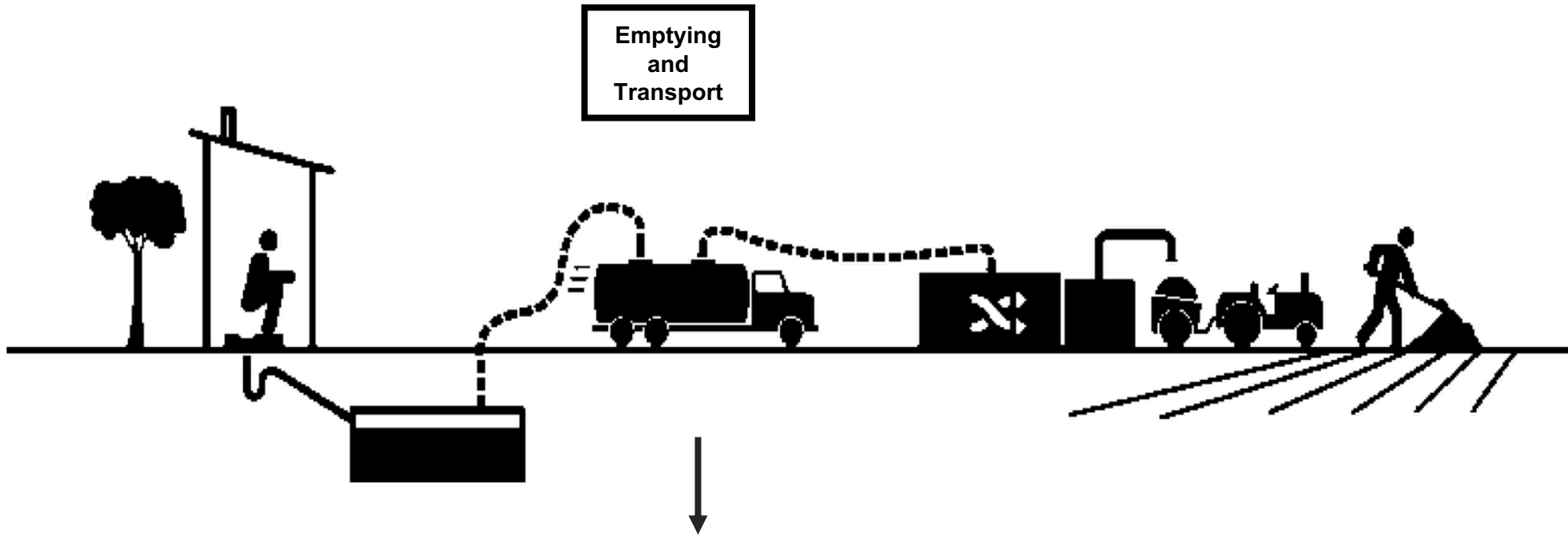
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Gaps across the sanitation value chain:
Non - AMRUT
Cities of Rajasthan



- **Open-defecation**
- **Poorly designed septic tanks do not comply with designs prescribed by BIS**
- **Effluent goes straight into open drains or soak pits - Contamination**

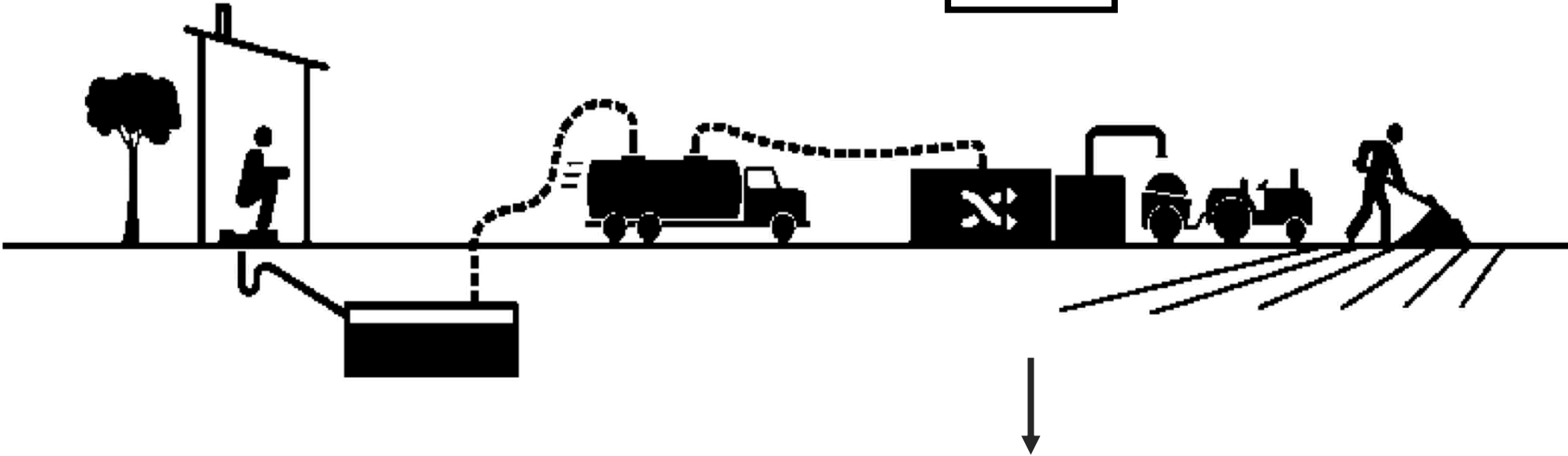


- **Manual emptying**
- **Difficult to purchase equipment**
- **No training, no hygiene, learn on the spot**

THIS is SEPTAGE – also called Faecal Sludge

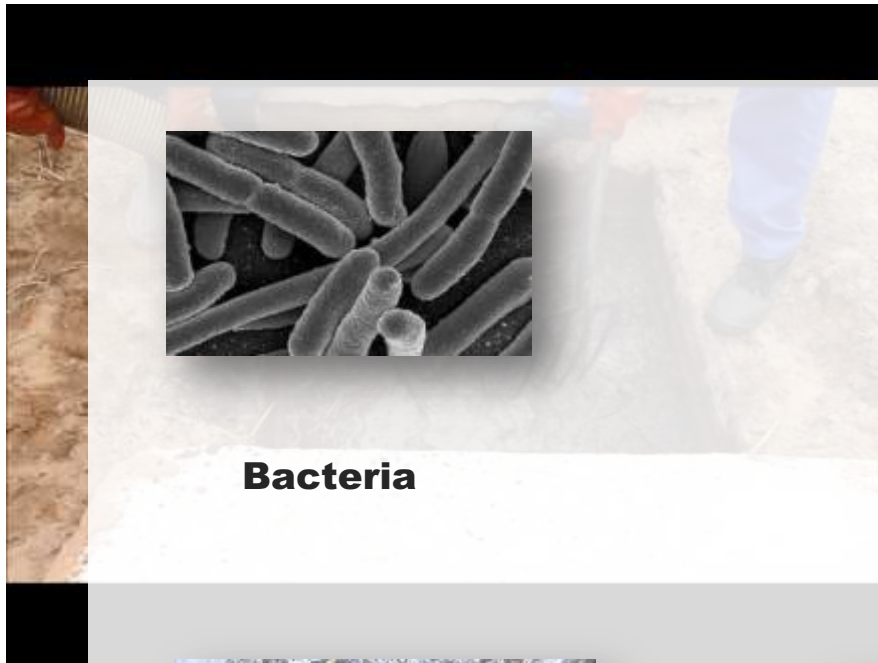


Treatment



- **No treatment – Disposal on fields or surface water – Contamination – Public Health**

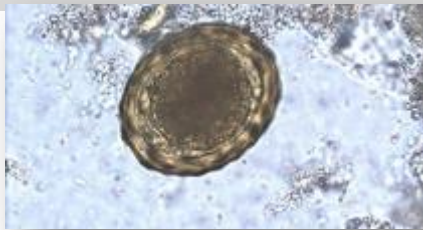
THIS is what is in SEPTAGE



Bacteria



Protozoa



Ascaris lumbricoides



Trichuris trichura



Hook worm

Recognition of FSSM

- D **National Policy on FSSM** by MoHUA, Gol
- D **National declaration on Septage Management** by MoHUA, Gol
- D One of the major **thrust areas of AMRUT**
- D **Primer on septage Management and Rapid Assessment tool** for estimating **budget requirements** for FSSM
- D **Septage Management Advisory** of Government of India provides references to CPHEEO guidelines, BIS standards, and other resources for preparing SMP / FSSM plan.



Swachh Bharat Mission (SBM) - Urban

Mission Objectives

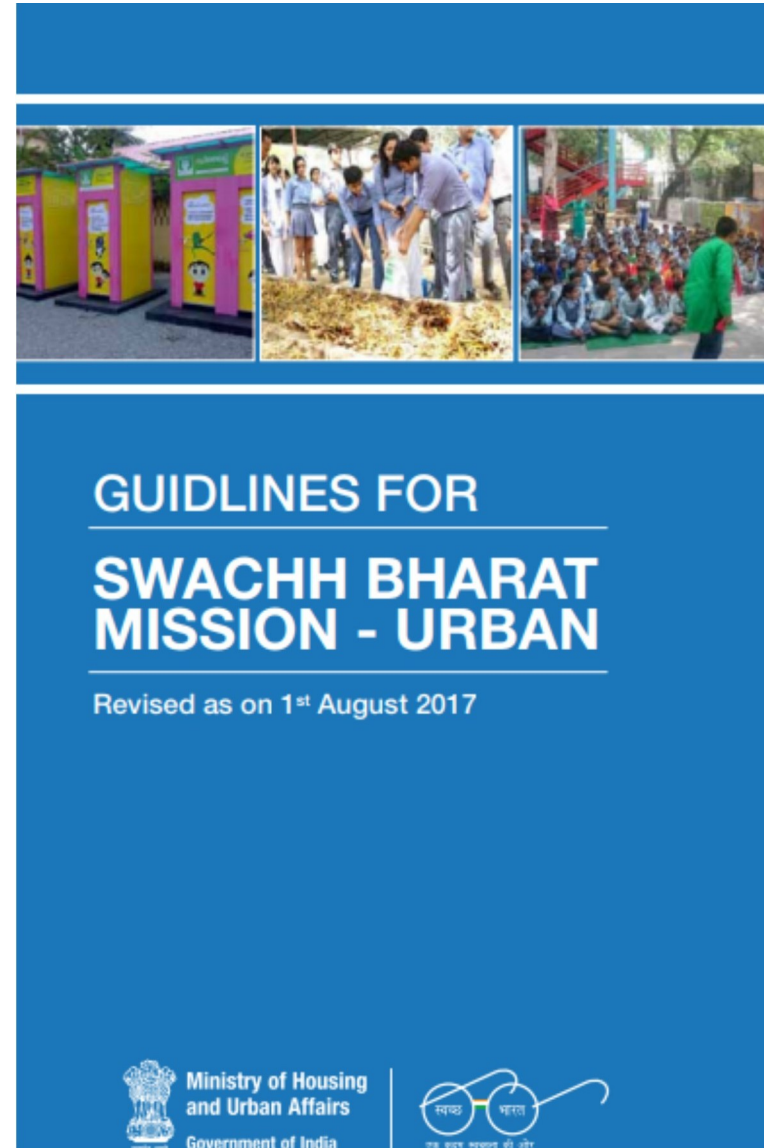
- Elimination of open defecation
- Eradication of Manual Scavenging

SBM (Urban) aims to ensure that

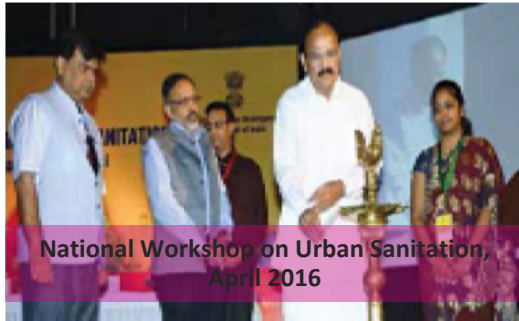
- a. No households engage in the practice of open defecation:
- b. No new insanitary toilets are constructed during the mission period, and
- c. Pit latrines are converted to sanitary latrines.

Mission Components

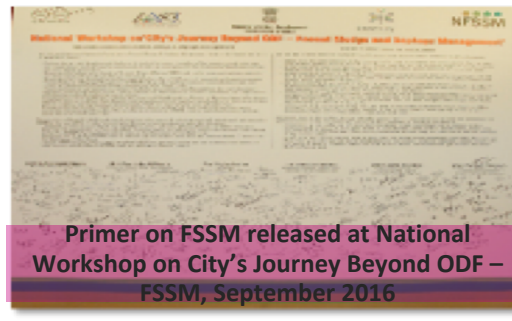
- Household toilets, including conversion of insanitary latrines into pour-flush latrines
- Community toilets
- Public toilets and urinals
- Solid Waste management



Centre and States : Facilitative FSSM climate



National Workshop on Urban Sanitation, April 2016



Primer on FSSM released at National Workshop on City's Journey Beyond ODF - FSSM, September 2016



MoU at FSM4 International Conference, February 2017



National FSSM Policy released at National Workshop on UD, 28th February 2017

Eight states have adopted state level policy/guidelines in line with the National Policy on Faecal Sludge and Septage Management (FSSM)

- Maharashtra
- Odisha
- Rajasthan
- Tamil Nadu
- Gujarat
- Jharkhand
- Andhra Pradesh
- Himachal Pradesh

State level FSSM Policy Updates

FSSM in AMRUT SAAPs

- Of the 36 submitted SAAPs, 26 states/UTs have explicitly identified FSSM related projects
- Five marks allocated to State FSSM policy under AMRUT reforms evaluation
- Coordinating and tracking states for issuance of policy guidelines at the state level

Proposals received for Funding from States/Cities

Septage Component	States	Cities	Total Project Cost (Rs. crores)
Transportation from septic tanks (With link to Sewerage Systems or Septic Systems)	17	67	5,878.6
Decentralized or Integrated Septage Management Systems	18	27	496

Year	States	Total Project Cost (Rs. Crore)
2014-15 (Septage Projects before AMRUT Mission)	3	912.5
2015-18 (Septage projects after launch of AMRUT Mission)	26	7,299.7

THANK YOU
