Rajasthan has a target of constructing 5 lakh toilets by 2017 in urban areas. It is expected to eliminate open defecation and will address the first component of the sanitation value chain. However, the issue of proper collection, conveyance, treatment and disposal of the faecal sludge/septage needs attention.

Sources:
(a) Census of India 2011, Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, Government of India
Some issues & challenges in septage management in urban Rajasthan

- Lack of awareness and capacities for FSSM in urban areas, especially among the residents, service providers and ULBs.
- Most stakeholders not up-to-date on modern technologies, standard construction techniques, operating procedures, safety & hygiene safeguards
- Desludging operators and service providers not properly trained and do not use safety equipment during operations
- Insufficient capacity for treatment of wastewater and faecal sludge/septage generated
- Absence of dedicated service level benchmarks for FSSM
- Limited availability of Standard Designs, Operating Procedures, Guidelines, Manuals, dedicated norms, etc for city-wide FSSM to aid ULBs
- Insufficient funds for creating and O&M of city-wide FSSM infrastructure
- ULBs not empowered to collect sanitation taxes, services charges, etc

Distribution of settlements according to coverage of households by On-site Sanitation Facilities (OSSF)

<table>
<thead>
<tr>
<th>% of HHs with OSS</th>
<th>No. of towns</th>
<th>% of total no. of towns</th>
<th>Total HHs in these towns</th>
<th>HHs with OSSF in these towns</th>
<th>OSSF as % of total HHs</th>
<th>Major towns in the category</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;75</td>
<td>67</td>
<td>22.60</td>
<td>793,009</td>
<td>652,480</td>
<td>82</td>
<td>Ajmer, Udaipur, Bhilwara, Sri Ganganagar, Hanumangarh, Sikar</td>
</tr>
<tr>
<td>50-75</td>
<td>130</td>
<td>43.80</td>
<td>1,057,743</td>
<td>659,956</td>
<td>62</td>
<td>Kota, Jaisalmer, Alwar, Bharatpur, Tonk, Sawai Madhopur, Jhalawar</td>
</tr>
<tr>
<td>25-50</td>
<td>89</td>
<td>30</td>
<td>462,110</td>
<td>185,146</td>
<td>40</td>
<td>Pali, Bikaner</td>
</tr>
<tr>
<td>&lt;25</td>
<td>11</td>
<td>3.70</td>
<td>778,078</td>
<td>155,497</td>
<td>20</td>
<td>Jodhpur, Jaipur</td>
</tr>
</tbody>
</table>

Note: A majority of the towns (66.4%) have coverage of more than 50% through OSSFs (such as septic tanks & pit latrines). More than 13 lakh households had some form of OSSF.


Source: Census of India 2011, Office of the Registrar General & Census Commissioner, Ministry of Home Affairs, Government of India
The sanitation value chain in urban Rajasthan

All Cities

- Access: Access to type of user interface
  - 2863
- Collection: Method of collection of waste
  - 2394
- Conveyance: Methods of conveyance of waste
  - 2863
- Treatment: Treatment of waste
  - 1523
- Disposal/Reuse: Disposal of waste
  - 384

AMRUT Cities

- Access: Access to type of user interface
  - 1924
- Collection: Method of collection of waste
  - 1700
- Conveyance: Methods of conveyance of waste
  - 1824
- Treatment: Treatment of waste
  - 1178
- Disposal/Reuse: Disposal of waste
  - 384

Non AMRUT Cities

- Access: Access to type of user interface
  - 919
- Collection: Method of collection of waste
  - 693
- Conveyance: Methods of conveyance of waste
  - 939
- Treatment: Treatment of waste
  - 345
- Disposal/Reuse: Disposal of waste
  - 0

### Key Recommendations

- **Sewage Treatment Plants (STPs)** are not an ideal solution for a state where more than 59% of the small towns studied receive only 40-70 lpcd of water, which is insufficient for sewage system based solutions. Faecal Sludge Treatment Plants (FSTPs) need to be promoted as a state level policy. Any alternative technology option, including Small Bore Sewer Systems, needs to be assessed for its cost effectiveness and operation and maintenance (O&M) and compared with that of FSTPs.

- The state should promote the adoption of safe sanitation norms – lined, properly designed septic tanks as per CPHEEO standards that are viable containment and primary treatment systems. Unlined septic tanks, which are large storage pits, are polluting the ground water and are a major health hazard for the future.

- In Rajasthan, STPs are proposed for all AMRUT towns and towns that have population above 50,000. An assessment needs to be made of all left-out urban settlements of large Corporations and AMRUT towns. The priority should be to connect these areas with the sewage system. If not, co-treatment of septage by emptying with the help of vaccum trucks and emptiers and treating it in the plant should be done.

- Initiatives towards state-wide capacity building for FSSM need to be supported, including basic and advanced orientation for a majority of ULB officials, elected representatives and the private sector.

- Funding needs to be committed and city-wide incentives need to be developed for setting up FSTPs.

- A state-level FSSM monitoring dashboard would be useful for monitoring the implementation, city-level preparedness, incentives and use of FSSM gran...