CITYWIDE SANITATION & FSM
GIZ experience in urban India

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ROLE OF FSM IN CITYWIDE SANITATION
Sustainable and Affordable for All

Rahul Sharma
Technical Advisor – GIZ India

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Structure of the Presentation

GIZ Experience - CSP

GIZ Experience - FSM
GIZ CSP Experience (2011 – 2014)

Government of India’s first exclusive policy on Sanitation

City Sanitation Plan (CSP) was first introduced in the NUSP to achieve the goals & vision of the NUSP

The GIZ & MoUD’s project ‘Support to National Urban Sanitation Policy’ supported in preparing model CSPs for 6 towns in India
GIZ CSP Experience (2011 – 2014)

GIZ supported in developing model CSPs for 6 town in India (Shimla, Varanasi, Raipur, Nashik, Tirupati, Kochi)
GIZ CSP Experience (2014 – 2017)

Handheld 58 Urban Local Bodies in 4 states (Kerala, Telangana, Andhra Pradesh & Uttarakhand) to enable them to prepare CSPs for their towns
GIZ CSP Experience (2014 – 2017)

Key Successes

• Successful collaboration: GIZ & CSE jointly supported 3 states for CSPs. Later CSE independently supported CSPs for Ganga Towns

• Kerala: During the trainings in Kerala, capacities of local training institute (Kerala Institute of Local Administration-KILA) was developed. Later KILA supported 25 additional towns in CSP preparation

• Telangana: Sensitization on FSM during CSP training lead to the planning of FSTP in Siddipet

• Andhra Pradesh: City Sanitation Task Force was formed in all the ULBs in the State

• Uttarakhand: Coordination between various departments helped in expediting the identification of land for solid waste processing & disposal site
Highlights of the GIZ-CSE trainings on CSPs (Citywide sanitation & FSM perspective)

- The training participants were exposed to all the available options for sanitation planning (eg. Centralised sewerage systems, decentralised sanitation, FSM, small bore sewer system, simplified sewer systems, etc.)

- Exposure to various onsite sanitation systems (eg. Septic tanks, twin pit latrines, DRDO Biodigester, Aerobic Bio Tanks)

- The training participants were always made aware of the bigger picture (treatment of all wastewater streams, managing the entire sanitation value chain)
Citywide Sanitation – conceptual understanding?

Access / Service to All

Addressing the whole sanitation chain

Management of all wastewater streams
Available sanitation solutions / options

- Conventional Sewerage systems
- Onsite sanitation systems
- Simplified Sewers
- Grey water management
- Shallow Sewers
- Other sanitation systems
- Decentralized Systems
- Faecal Sludge Management
1. Is FSM a complete sanitation solution?

Complete sanitation solution = Safe management of all wastewater streams (blackwater & greywater) emanating from households

The effluent / overflow from septic tanks & greywater from households is not covered in FSM

It would not be incorrect to say ‘FSM alone may help in achieving cleaner environment without much contribution to cleaner towns’

Additional sanitation system is / may be required in combination with FSM for a complete sanitation solution
2. What is the real cost of FSM?

Generally, people are of the opinion that the cost of FSM is very low compared to an underground sewerage system.

<table>
<thead>
<tr>
<th>Faecal sludge Management</th>
<th>Underground sewerage system</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Septic tanks</td>
<td>a. Connecting household to sewer network</td>
</tr>
<tr>
<td>b. FS emptying &amp; transportation vehicles</td>
<td>b. Sewer network &amp; pumping stations</td>
</tr>
<tr>
<td>c. FS treatment plant</td>
<td>c. Sewage treatment plant</td>
</tr>
<tr>
<td>d. Conveyance, treatment &amp; safe disposal of effluent / overflow from septic tanks &amp; grey water from households</td>
<td></td>
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</tbody>
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For real comparison of cost, the costs for end to end solution needs to be considered.
3. Sanitation is much more than underground sewerage & FSM?

Various sanitation solutions should be evaluated to arrive at the most feasibility solution (combinations of solutions) for a project site.
Concluding Remarks

The options of underground sewers, FSM, small bore sewers, shallow sewers and twin drains, etc., all have to be relatively evaluated to subregions of the project site instead of blindly going in for a total underground flat out. *Source: CPHEEO Sewerage Manual, Government of India, 2013*

To achieve the goal of complete sanitation for towns / citywide sanitation, FSM is only one of the available sanitation options (in combination with other sanitation solutions)
Coexistence of various sanitation options – Integrated approach
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Sustainable Urban and Industrial Development

B-5/2, Safdarjung Enclave, New Delhi 110029
T +91 11 49495353
F +91 11 49495391
E Georg.jahnsen@giz.de
I www.giz.de

Responsible:
Georg Jahnsen

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