Meeting cum exposure visit on sustainable rural sanitation for African stakeholders

Impact of faulty toilet structure: Health, Water and Economics

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Short films

Mahatma Gandhi Sanitation Convention Film
What is ODF?

The Government of India, vide its letter of 9 June 2015, addressed to all administrative secretaries, defines ODF (open defecation free) as:

**ODF** is the **termination of fecal-oral transmission**, defined by:

(a) No visible feces found in the environment/village; and

(b) Every house as well as public/community institutions using safe technology option for disposal of feces.

**Safe technology option means**

- *no contamination of surface soil, groundwater or surface water*
- *excreta inaccessible to flies or animals;*
- *no handling of fresh excreta; and*
- *freedom from odor and unsightly condition.*

*Pour Flush Twin Pit Toilet is promoted by Government

USD 200 given to all BPL a(Poor) and selected APL households*
World Picture on Open Defecation

- Rest of the World, 162.66 million
- Nigeria, 45.75 million
- Brazil, 4.06 million
- Nepal, 8.96 million
- Nigeria, 45.75 million
- Pakistan, 24.4 million
- Ethiopia, 28.4 million
- China, 14.01 million
- Indonesia, 51 million

Source: JMP Report 2015

2014:
60% people globally that defecated in the open reside in India = 564 million

2018:
About 50 - 100 million left

* 60% of India’s rural population defecated in the Open: 564 million people
How is SBM–G different from previous sanitation programs

- PM’s flagship program + a people’s movement
- Behaviour change at the heart of SBM’s strategy
- Focus shifted from outputs to outcomes - toilet construction to ODF
- Use of innovative techniques, technologies and partnerships
- **Massive Communication campaign – People Movement**
- Focus on verification and sustainability
- Renewed focus on Solid and Liquid Waste Management (SLWM)
4: The Challenge

- 600,000,000 people
- 600,000,000 people defecated in open (60% of world)
- 600,000 villages
- 700 districts
- 35 States/UTs

Rural India Sanitation Coverage %

- 1950: <1
- 1960: <1
- 1970: <1
- 1980: [Y VALUE].00
- 1990: [Y VALUE].00
- 2000: 21.92
- 2010: [Y VALUE]
...and a Sunset Clause!

- **CM**
  - Chief Ministers lead at the State level

- **DM**
  - District Magistrates prioritize sanitation

- **VM**
  - Village Mukhiyas (village leaders) lead behaviour change in villages

First, behaviour change in leadership
Quick wins, Friendly Competition among States
“Wholesale” and “Retail”
Scale

**Team Swachh Bharat**

- 120 million school students
- 1 million masons (100,000 women)
- 500,000 Swachhagrahis
- 250,000 Sarpanches
- 700 District Collectors
- 400 Preraks (YPs)
- 20 Brand Ambassadors
- 1 Communicator-in-Chief
ODF-Q
- Every toilet geo-tagged
- Double Verification system
- Rapid response to reports of poor quality

ODF-S
- Continuous behavior change communication
- O&M important for sustained usage
- Institutional mechanisms and financial incentives
- Ten Year Sanitation Strategy for sustainability

ODF-plus
- Solid and Liquid Waste Mgt prioritized in ODF villages
- Water supply on priority to ODF villages
Lessons Learned

Political Leadership
- Political will and leadership from the top is critical

Public Funding
- Put your money where your mouth is (Over $20 billion committed)

Partnerships
- Engage with Development Partners, NGOs, private sector, civil society, media

People’s Participation
- Sanitation not a government programme, but a jan andolan

Rural India Sanitation Coverage

The Concorde Slope

<table>
<thead>
<tr>
<th>Year</th>
<th>Coverage</th>
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<tbody>
<tr>
<td>1947</td>
<td>&lt;1</td>
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<tr>
<td>1981</td>
<td>1.00</td>
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<td>1991</td>
<td>9.00</td>
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<tr>
<td>2001</td>
<td>21.92</td>
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<td>2014</td>
<td>38.10</td>
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</table>
18: Swachh Bharat Outcome So Far

9% (Oct 2, 2014)  98% (As on date)

- 450 million people changed their behavior
- 92 million toilets built (93% usage)
- 555,000 villages ODF
- 616 districts ODF
- 30 States/UTs ODF
Impact so far

SBM saves lives

- 58,000 healthier births avoided in India
  - homes ODF

SBM improves health

- 58% higher cases of wasting, 17% higher cases of stunting, in non-ODF areas

SBM empowers women

- Strengthens safety of women and increases their workforce participation

SBM saves money

- Household in an ODF village in India saves on average Rs 50,000 (USD 800) per year
Overall, in terms of faecal contamination, ODF villages (as compared to non-ODF villages) were, on average:

- 21.7 times less likely to have their groundwater sources contaminated (17.1 times less from contaminants traceable to humans alone)
- 1.16 times less likely to have their soil contaminated
- 36.7 times less likely to have food contaminated and 20.1 times less likely to have household drinking water contaminated.

The study findings indicate that these substantial reductions may potentially be attributed to the improvement in sanitation and hygiene practices, as well as supportive systems such as regular monitoring and behaviour change messaging.
SAFE SANITATION AND PREVENT SLIPPAGE

A. Sanitation infrastructure

1. Retrofitting
   - Single pits
   - Septic tanks
   - Out soak pits
   - Incorrect construction

2. O&M
   - Pit emptying
   - Repairs

3. Upgrades
   - Bathrooms
   - Accessibility
   - Aspirational

4. FSM
   - Policy
   - Regulation

B. Management

5. IEC
   - Usage, child excreta, hygiene

6. Capacity Building
   - Departments, G沿线e line workers

7. Financing
   - Credit linkage, Sector

8. Monitoring
   - Slip-backs, technical course correction

9. Human Resources
   - Staffing, Training

10. Partnerships
    - KRCs, Development partners, other departments, Pvt

11. R & D
    - NISH, Eng colleges, TISS
No visible faeces found in the environment/village

Every household uses SAFE technology option for disposal of faeces

Safe disposal of human excreta is sustained post attainment of ODF status; Handwashing and Personal hygiene

SLWM, Grey Water management; Plastic Waste; Bio waste; MHM
Issues
What’s wrong here?

Distance between pits too low; this allows water from one pit to seep into the other; min distance between pits is 3ft.

Photo Credit: Shrikant
What’s wrong here?

Pit is too deep; **ideal depth of circular pit is 4ft**; if black soil, can dig upto one additional foot

*Photo Credit: Shrikant*
Water source too close to the toilet; water from pit leaches into nearby ground and contaminates the surrounding ground water source; ideal distance to be maintained is more than 10ft

Photo Credit: Shrikant
ODF-S PROTOCOL
<table>
<thead>
<tr>
<th>Policy</th>
<th>ODF-S Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and legal framework</td>
<td>• All States to submit <strong>annual plan</strong> for ODF-S</td>
</tr>
<tr>
<td></td>
<td>• ODF-S agenda in <strong>Gram sabha and re-affirmation</strong></td>
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<tr>
<td></td>
<td>• New house construction to include installation of latrines</td>
</tr>
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<td></td>
<td>• Toilet as <strong>qualification</strong> for elections</td>
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<tr>
<td></td>
<td>• Second Verification, <strong>third party</strong> verifiers</td>
</tr>
<tr>
<td></td>
<td>• Sanitation plans to integrate with <strong>GPDPs</strong></td>
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<tr>
<td>Technology</td>
<td>• <strong>Retrofitted toilets, accessible toilets</strong></td>
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<tr>
<td></td>
<td>• <strong>FSM</strong> protocol</td>
</tr>
<tr>
<td></td>
<td>• <strong>Post ODF IEC Plan</strong></td>
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<tr>
<td></td>
<td>• <strong>Sanitation month</strong> - October</td>
</tr>
<tr>
<td>Capacity Building</td>
<td>• <strong>Post ODF CB Plan</strong></td>
</tr>
<tr>
<td></td>
<td>• All States/district mapped with institutions</td>
</tr>
<tr>
<td>Monitoring</td>
<td>• <strong>Sustainability parameters</strong> on MIS</td>
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<td></td>
<td>• Social audit at GP level</td>
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<tr>
<td>Institutional</td>
<td>• <strong>Retaining SBMG functionaries</strong> post ODF</td>
</tr>
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<td></td>
<td>• <strong>Annual awards</strong> for CDF-S</td>
</tr>
<tr>
<td>NHM</td>
<td>• <strong>Staff, IEC, CB</strong></td>
</tr>
</tbody>
</table>
Thank you
1. Toilet Retrofit

Conversions
Incorrect construction
Access to water – overhead tank, hand pumps etc.

2. Operation and Maintenance

Repairs
Emptying of pits / septic tanks;

3. Upgrades

Disability
Bathing facilities
Aspirational toilets (tile cladding, wash basin, etc)
4. Fecal Sludge Management

Policy
- Technology recommendations
- Treatment and disposal

Regulation
- FSM vendors
- Certification
SAFE SANITATION AND PREVENT SLIPPAGE

### A. Sanitation infrastructure

<table>
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<th>4. FSM</th>
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<td>Bathrooms</td>
<td>Policy</td>
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<tr>
<td>Septic tanks</td>
<td>Repairs</td>
<td>Accessibility</td>
<td>Regulation</td>
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<tr>
<td>out soak pits</td>
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<td>Incorrect</td>
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<td>instruction</td>
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### B. Management

| 5. IEC | Usage, child, excreta, hygiene |
| 6. Capacity Building | Departments, Govt line workers |
| 7. Financing | Credit linkage, Sector |
| 8. Monitoring | Slip-backs, tech, course corrections |
| 9. Human Resources | Staffing, Training |
| 10. Partnerships | KRCs, Development partners, other departments, Pvt |
| 11. R & D | NISH, Engineering colleges, TISS |
Messaging for Sustainability

ODF IEC blind spots:

1. Usage by all – focus on men
2. Child Excreta Management
3. Handwashing and hygiene
4. Focus on technical corrections
5. Twin pit myths
6. Pit emptying
7. Safe cleaning agent for twin-pits
8. Publicizing jobs created / entrepreneurship

IEC Toolkit
1. **Who to train?**

   Government employees, PRI officials, SIRD, NYK/NSS, ITIs, partner orgs, masons. Massive cascading training on ODF S of 800,000 local govt officials being initiated in 2019.

2. **Who will train?**

   States through government institutes KRCs, NGOs, Partner Orgs

3. **How to train?**

   Field modules (watch and learn, do it yourself)
   Manuals, Ready Reckoners
   Cross-visits
What components of ODF-S need financing?

- IEC, Capacity building, Manpower
- Retrofitting, O&M, repair of toilets
- Construction of IHHLs not covered under SBMG, shared, CT/PT, in toilets, etc.

➤ CONVERGENCE OPPORTUNITIES

- MGNREGA, 14th FC, MPLADS / MLALADS, LIS, District Mining Fund, Inter Ministerial
- NABARD or District Lead Bank

➤ BALANCE IEC, ADMIN FUNDS FROM PREVIOUS YEARS

➤ CSR

➤ CREDIT LINKAGE For Retrofitting, O&M, Repairs and Upgrade of Toilets
  Aligning with MSRLM, MAVIM or other micro finance and alternative banking projects
Nigrani samitis to continue for 3 years post-ODF

Pit emptying of *due-HH pits* after two years of usage, to be tracked and captured

Social audit at GP level every October 2\textsuperscript{nd} for re-affirmation of ODF

Technology to track usage? *a la* Swachhathon odour-sensors
IEC & Monitoring

- Swachhagrahis, ASHA, ANM, VWSCs, migrani sanitis, etc
- ICDS, Education, PR & RD, Tribal, State Pollution, Agriculture, etc

Service Delivery

- Scrap dealers, FSM vendors – job opportunities for rehabilitation of sanitation workers
- Rural marts for manufacturing, repairs, retrofitting, O&M and upgrades
Sustained behavior change
- Media (TV, print, Radio), NGOs, CSR, PSUs, govt. agencies (youth agen, etc)

Strengthened supply chain
- Production centres, private vendors, SHG run models

Credit Linkages
- Banks, micro-finance, SHGs, Revolving fund, etc.

Building capacities
- KRCs, SIRD, NIRD, NSDC, PR & RD, Agriculture dept, etc

Service Delivery
- Call centre, eg: Infosys
- PPP and social entrepreneurship for user-fee-based services
Research Development

- Tie-up with IITs, TISS, TERI, other engineering and design colleges
- Swachhathon 2.0?
ODF-S as part of **ACR** for functionaries at all levels

An ODF-S-linked **increment** / incentive for ground functionaries

**Awards** for performance at major events – local, State, National

**Cross-exposure** through exchange programmes to other Districts / States / Countries
Thank you
1. Annual plan template
2. Retrofitting guidance
3. IEC toolkit
4. Capacity building modules
• Advisory on IEC+CB+Admin expenditure at Centre for ODF-S as per ongoing norms; amount = last expenditure incurred in the ODF declared year
• Consultation with all States on ODF-S, Dec 2017
• Launch protocol, Jan 2018
• AIP submission by States, Jan 2018
• Create a committee for toilet technology advisement (development orgs, experts, etc), Feb 2018
• Pilot convergence of funds with one State
• National level institutional strengthening eg: NISH, TISS
Thank you
Retrofit Universe

a. Conversions

- Single Pit to Twin Pit
- Septic tank without soak pit to with soak pit
- Shared toilet to IHHL

b. Corrections

- Twin pits too close to each other
- Twin pits too close to drinking water source
- Pits too deep
- Single pit with no junction
- Twin pit in high water table areas
- Alternative toilet cleaning agents
- Incorrect pits beneath a structure
- No space for second pit
- Pit is cemented at the bottom and in use
- Leach pits without holes
- Poor angle of toilet pan trap
- Poor Junction chamber
Corrective measure

An impermeable baffle wall may be provided between the pits. This wall may be made of brickwork or concrete. To minimize cost, a trench of required depth and width can be dug in-between the pits and filled up with puddle clay/ bentonite clay to stop or retard travel of moisture.

Photo Credit: Shrikant
Low or no-cost tools

- Community Radio
- Post cards
- SMS blast, IVR
- Wall paintings
- Cable TV
- Competitions (Schools)
- Song, Drama, Puppet shows (Division)
- Doctors’ prescription, electricity bills, textbooks, railway tickets, etc
Using Community Radio to engage the rural population

Focus can be on –
1. Relatable community stories
2. Role Models and natural leaders
3. General awareness on sanitation and hygiene
4. Stories of successful Village Level Organisations
Example those provided by Railways

Dawn of a 'Swachh Bharat'
with a Clean Railway Journe

Indian Railways
www.indianrailways.gov.in

Please remember to:

- Throw garbage in the dustbin
- Always use toilets and keep them clean
- Keep Train & Station premises clean
- Not spit as it spreads dirt & germs

Re. 1.50 to buy print and mail each postcard across the country
Engage local celebrities to voice the sms-es
स्वच्छ भारत मिशन (ग्रामीण)

लूट से गौर करने एवं सार्वजनिक जगहों पर गडगडी करते पाये जाने पर 250 है. से 500 है. तक दूर, ज्यादा भरकम आवेग। ज्यादा नहीं पड़ते पर जाबली कार्यवाही की जाओगी। स्वच्छता द्वारा पालिका प्रशासन के प्रतियोगी
ग्राम पंचायत इकैई
Use Cable-TV for messaging on twin pit technology and usage

https://www.youtube.com/watch?v=ym4EJQ7XORk
Making Toilet Aspirational

1. Brand and market a competition in schools amongst youth

2. Can be essay, film, short stories, paintings etc.

3. Set up terms and conditions, regulations and judgment parameters
Strengthening IEC partnerships

Must-Do
- AIR
- Doordarshan, NFDC
- State vernacular media
- Department of Post, Electricity
- Inter- Ministerial Convergence

Can-do
- Independent Orgs - IMA, Corporates, PSUs
- Cable TV network
- Radio Mirchi
- CBOs