Targeting Public Health Outcomes through Sanitation Initiatives: Lessons from India

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Outline

- Recent Developments in Rural Sanitation in India
- Lessons for Urban Sanitation
- Recent Urban Sanitation developments in India
- Some Urban Success Stories
While the Indian Planning Commission Documents recognize that:

- Good sanitation can reduce disease burden by over 50%
- and poor sanitation practices are the main cause of water quality problems

... Formal rural sanitation coverage remains low at 45% today. Effective coverage is even lower

.... However recent initiatives offer hope

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Traditional approach

Traditionally the approach to addressing sanitation issues in rural India was based on promoting toilet construction through:

- Supply driven
- Subsidy based
- Govt. led construction programs
It failed to achieve the desired public health outcomes, as

- Toilet construction was an end in itself; usage was limited due to absence of behavior change effort
- Mis-appropriation of subsidy was a major motivation
- Need for community wide transformation was not realized
- Safe disposal was not adequately stressed

Looking at the Evidence: Much Construction but Limited Use

- **Maharashtra (1997-2000):** 16.61 lakh toilets built BUT usage is 43% - 57% (concurrent evaluation)
- **CM Programme in A.P. (2001-):** 29 lakh toilets built BUT usage is 41% - 67% concurrent evaluation
- **State Programme in H.P. (1993-1998):** 3 lakh toilets built BUT usage is approx. 30% (evaluation in 2003)

*1 lakh = 100,000*
Consequence of Subsidy led Construction without behavior change

Community wide adoption of good practice essential: Evidence from HP, India - Enhanced toilet use is not sufficient

Announcement of Total Sanitation Campaign (TSC) in 1999 signaled shift from subsidy led toilet construction targets to a focus on behaviour change: *meeting the challenge of achieving outcomes*

- National award scheme (Nirmal Gram Puruskar) to incentivize open defecation free (ODF) villages and safe disposal of liquid and solid waste implemented since 2005: *meeting the challenge of community mobilization*

- Reformed policy framework allowed advocacy led efforts to promote CLTS approach to overcome shortcomings related to subsidies and lack of community wide targeting that persisted in TSC: *overcoming shortcomings of public delivery agencies*

- Progressive State Governments adopted TSC++ policies with remarkable results e.g. Maharashtra
Today there is slowly growing realization that:

- We must target behavior change: Open defecation ‘NOT’ due to lack of toilets but the absence of behavior change triggered by public health awareness; all other motivators (privacy, aesthetics etc.) are secondary and insufficient.

- Change must be community wide: Target communities rather than individuals to get public health benefits and create peer pressure.

- Presence of up-front individual subsidies undermines efficacy of sanitation initiatives based on triggering community wide behavior change – use budgetary resources as a post facto incentive (award); let communities / local governments address affordability issues.

Sanitation efforts must target Public Health outcomes on the above lines and not just a landscape of toilets!

Thus, the shift is from:

- Infrastructure creation – toilet construction

  Behaviour change of individuals

  COMMUNITY BEHAVIOUR CHANGE
CLTS Approach: Demand Stimulation through collective action

Creating community wide awareness........
Overcoming Common ‘obstacles’

Many poor communities have become Open Defecation Free; only need is ignition leading to self realisation. Many communities which are ODF are in drought prone areas.

Communities have come out with innovative solutions to lack of space.

Encouraging Trend: But much remains to be done

Nirmal Gram Paraskar (Clean Village Prize) 2005, 06 & 07

...still a long way to go to cover all 230,000 GPs
### Challenges Remain

- Most states still concentrate on and monitor toilet construction targets.
- Most states continue with high up-front individual subsidies.
- There is need to emulate progressive States like Maharashtra: If subsidies cannot be avoided, they must be post-facto, linked to outcomes and (ideally) community targeted.

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Urban Sanitation Ground Realities: 
... an ongoing public health crisis

More than 10 million households or 40-50 million people defecate in the open!

- 48-82% of Human Excreta disposed unsafely;
- ~ 63% of wastewater NOT treated
- Sewerage remains primary focus of attention although national coverage remains 28%.
- **Huge Health Costs:** Cost per DALY* due to poor sanitation and poor hygiene practices is estimated at $120 (Rs. 5,400) and $20 (Rs. 900), respectively
- **Significant Environmental Costs:** “Three-fourths of surface water resources are polluted and 80 per cent of the pollution is due to by sewage alone” (Tenth Five Year Plan).

* DALY: Disability Adjusted Life Years

The issue is not toilet coverage and use.... but also safe confinement and disposal of excreta

### Sewerage and Sanitation

- **Household Toilet** 74%
  - On Site Disposal 34-46%
  - Sewerage Connection 40-28%
  - Using Community Toilets 8%
- **No Household Toilets** 26%
  - Open Defecation 18%
  - Unsafe Disposal 48-82%

- **Safe Disposal** 18-52%
What could be done?: Lessons from Rural Sanitation

- Rural sanitation offers the key principles that are beginning to guide urban sanitation initiatives in India:
  - Focus on public health outcomes rather than infrastructure
  - Total sanitation a prerequisite for public health outcomes
  - Collective behavior change through community outreach the key ingredient
  - Performance based incentives to achieve outcomes
  - Focus on institutions and partnerships
  - Choice of technology options: addressing local needs, affordability etc.
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Recent Initiatives

- Multi-stakeholder, multi-departmental National Urban Sanitation Task Force, supported by WSP, set up by Ministry of Urban Development at National level.

- Draft National Urban Sanitation Policy prepared by task force through wide consultation and interaction with wide array of stakeholders including experts, NGOs, State Governments etc.

- Policy enactment process underway at National level
Envisaged Policy Vision

- Work towards transforming urban India into **fully sanitized and livable cities and towns** (Nirmal Shahars) through time bound immediate, medium and long term goals:
  - **Short term (by 2009):** Open Defecation Free cities: Focusing on behavior change, access to and use of individual or community facilities by all.
  - **Medium term (by 2012):** Adequate availability and proper upkeep and management of sanitation facilities through city-wide approach with prudent institutional models and technology choices.
  - **Long term (by 2015):** Achieve Total Sanitation with sustained access, and 100% safe and sanitary disposal of human excreta and liquid and solid waste

Key Elements

- **Awareness Generation:** Target collective behaviour change
- **City-wide basis:** Public health outcomes through comprehensiveness
- **Institutional and Technology Options:** target sustainability; effectiveness of investments; improved practices; using underused infrastructure.
- **Reach the un-served and poor:** Inclusive community based approach
- **Client focus:** Articulate demand through behaviour change; create ownership, respond to preferences.
- **Capacity Building, Financing and National M&E:** Re-align GoI transfers to reward outcomes – awards scheme
- **State / City Strategies**
  - ...... above all, non-prescriptive framework
**The Proposed Awards Scheme: Nirmal Shahar Puraskar** (Clean City Prize)

**Goal:** to encourage cities to strive for 100 percent safe and sanitation outcomes

**Vision:**

- **Open Defecation Free Cities**
- **Proper upkeep & management**
- **Total Sanitation with Sanitary disposal**

### Incentives for graduation
- **Red:** Cities on the brink of public health and environmental "emergency" and needing immediate remedial action
- **Black:** Needing considerable improvements
- **Blue:** Recovering but still diseased
- **Green:** Healthy and Clean city: eligible for rewards

### Special and honoraray awards

**Rating of cities based on indicators:** Red, Black, Blue, Green

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Underground Sewerage in Alandur, Tamil Nadu

Key Features
- Champion led: High credibility of Municipal Chairman, personally led house to house outreach
- Strong Communication and Community Engagement emphasis
- 29% user contribution to capital cost: full transparency in management of financial transaction.
- Private Sector Participation in O&M

Progress
- Nearly 23,000 households have paid their contribution.
- 43 percent slum dwellers want individual connections. Public toilets, run by CBOs for others: 14 operational
- Implementation started in 2000 and is still ongoing: Phase I covering 8,350 households has been completed;
- 500 slum households are connected.

Slum Sanitation Program, Mumbai

- 55% of Greater Mumbai’s population of 16.4 million lives in slums
- Bank loan in 1995 for community toilets targeting 1 million slum dwellers.
- CBO led and managed implementation and operation
- Bidding process led by Municipal Corporation for NGO selection to create and facilitate CBO
- Total project cost borne by the Municipal Corporation with 60% financing from World Bank loan
- O&M borne totally by the community. Upfront contribution of Rs. 100 per family
- The caretaker family lives on the first floor. Toilets have come to serve as community centers, schools and libraries.
- 800 community toilets completed under Phase I.
- 3,500 toilets are to be constructed in Phase II.
NGO-Utility partnership in Bangalore
Individual toilets in Surat slums through NGO led efforts

Achieving an Open Defecation Free Town: Kalyani

Promoting Open-Defecation Free Town through song
One latrine built for Rs. 700 in Kalyani slum

PPP Model: New Delhi
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<thead>
<tr>
<th>Key Content of the Delhi Build, Operate, and Transfer Contracts</th>
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<tbody>
<tr>
<td>• The contract is for five to seven years, after which ownership transfers to the municipality.</td>
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<tr>
<td>• The municipality provides land free of cost but retains the title; it provides power, water, and other facilities on payment.</td>
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<td>• The contractor must build sound and aesthetically appealing facilities, at his own cost, and may plant flowers and shrubs around each convenience.</td>
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<tr>
<td>• The contractor must maintain the complex, keep it clean (internally and externally), and provide continuous clean water, exhaust fans, hand dryers, tissues, soap, towels, and so on.</td>
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<td>• User charges are limited to Rs. 2 (US$0.05) per head for a compartment, Rs. 1 (US$0.02) for a urinal.</td>
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<td>• The contractor may use road-facing walls for advertising, paying a licence fee and tax.</td>
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<tr>
<td>• The municipality may terminate the contract if conditions are breached.</td>
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Thank you