

## Workshop Agenda

### Ministry of Urban Development

CEPT University

### Centre for Policy Research

### Workshop on Financing Urban Sanitation

23<sup>rd</sup> January, 2014

Venue: Centre for Policy Research, Dharma Marg, Chanakyapuri, New Delhi - 110021

**Objective:** Urban sanitation has been on the national agenda since the adoption of the National Urban Sanitation Policy in 2008. The workshop aims to discuss sustainable sources and mechanisms for financing urban sanitation both to increase the total pool as well as improve funding effectiveness.

The focus of this brainstorming workshop will be on assessing the possibility of using the new sources of finance such as the Corporate Social Responsibility (CSR) funds and from Social Impact Investors. In addition, the deliberations will also assess measures needed to strengthen the use of government funding and tap private funds through innovative public-private partnership arrangements for sanitation. Possibilities of using results-based funding to improve funding effectiveness will also be discussed.

The workshop will have a few brief presentations that will provide a basis for informed discussions. The Ministry of Urban Development (MoUD) presentation will provide background to the national sanitation policies and set out core costs and principles for urban sanitation financing. The Centre for Policy Research (CPR) presentation will discuss lessons and key opportunities and constraints in public finance for urban sanitation. The CEPT presentation will provide some information on possible innovative financing instruments for urban sanitation.

<b>Time</b>	<b>Session Theme</b>
09.30 – 10.00	Registration
Session I – Setting the Background Chair: Shri K C Sivaramakrishnan, President, CPR	
10.00 – 10.15	Welcome, Background to the Workshop and Introductions (MoUD/CEPT/CPR)

<b>Time</b>	<b>Session Theme</b>
10.15 – 10.35	Presentation by MoUD <ul style="list-style-type: none"> <li>• Government of India’s Vision and Strategy for Urban Sanitation</li> <li>• National Urban Sanitation Policy, Follow ups from State Sanitation Strategies, City Sanitation Plans and Other Activities and Overview of the Financing Requirements for Achieving Total Urban Sanitation</li> </ul>
10.35 – 10.45	Presentation by CPR <ul style="list-style-type: none"> <li>• Public Finance for Urban Basic Services – Lessons, Key Opportunities and Constraints</li> </ul>
10.45 – 11.00	Tea/Coffee Break
Session II – Exploring Innovative Financing for Urban Sanitation Chair: Dr Ashok Singhvi, Joint Secretary, Ministry of Urban Development	
11:00 – 11:30	Presentation by CEPT <ul style="list-style-type: none"> <li>• Financing Urban Sanitation – Need and the Gap</li> <li>• Exploring Innovative Options</li> <li>• Potential and Need for Enabling Environment</li> </ul>
11.30 – 13.00	Open Discussion - Participants to Share Their Experience on Financing Infrastructure and Service Delivery, Especially Urban Sanitation
13:00 – 13.30	Wrap up and Way Forward
13.30 – 14.30	Lunch

# **Presentations from the Workshop**

**“Government of India’s Vision, Initiatives and Strategy for Urban Sanitation” by CPHEEO**

**“Innovative Urban Sanitation Financing in India”  
by CEPT University and Dalberg**

**“Finance for Urban Basic Services – Lessons, Key Opportunities and Constraints” by Centre for Policy Research**

**“Government of India’s Vision, Initiatives  
and Strategy for Urban Sanitation”**

**by CPHEEO**



Government of India

# Workshop on Financing Urban Sanitation 23-01-14

## **Govt. of India's Vision, Initiatives and Strategy for Urban Sanitation**

**Dr. M. Dhinadhayan**

Joint Adviser (PHEE)

CPHEEO



Ministry of Urban Development

## Sector Responsibility

- Sanitation is a State subject and it is the responsibility of the State Governments / Urban Local Bodies to plan, design, implement, operate & maintain the sanitation system in the urban areas of the country.
- The Ministry of Urban Development acts a facilitator and is responsible for formulating policies, programmes and preparation of guidelines for the water supply and sanitation sector.

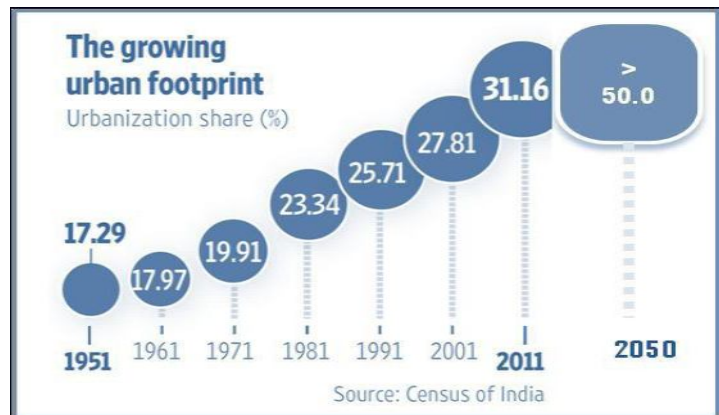
# Urban Population

As per Census 2011:

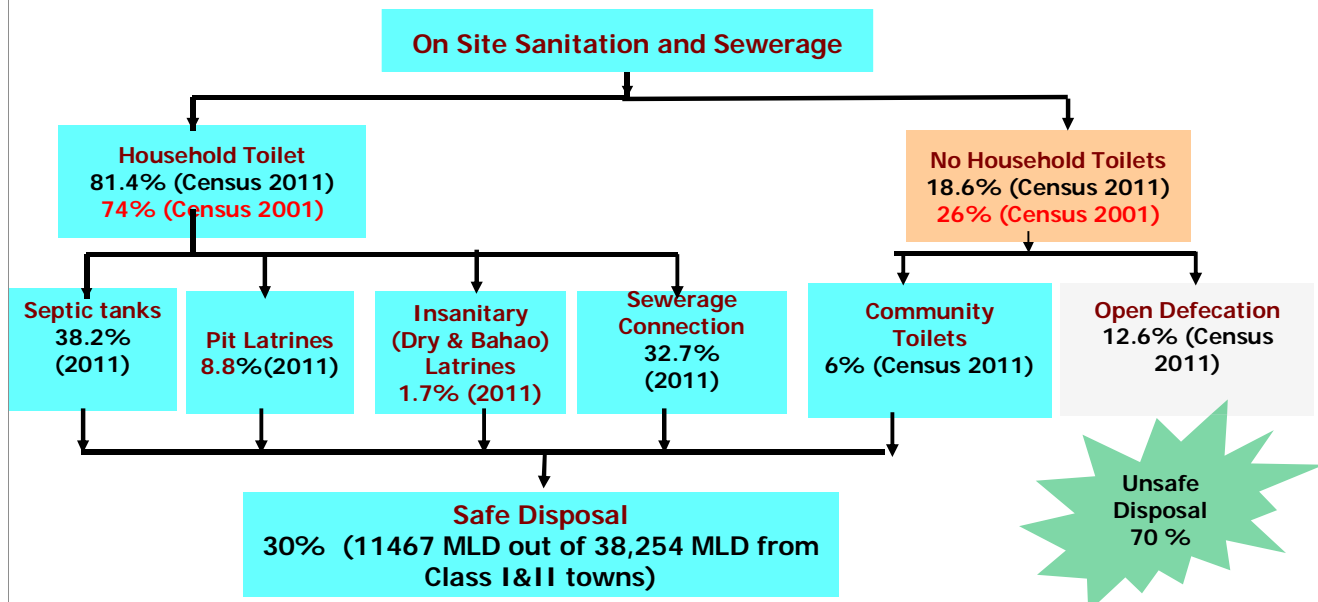
- 377 million i.e approximately 31% of the total population live in towns
- No. of towns increased from 5161 in 2001 to 7935 in 2011.
- 37% lives in 35 million plus Metros
- Net decadal growth of urban population is more than the rural growth

## Projections:

More than 50% of the Country's population will be in Urban by 2050



## Sanitation Situation in Urban Areas and the Proposed measures



- 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

## Key Issues in Sanitation System

- Inadequate priority assigned for sewerage system by the ULBs & States due to lack of capacity & financial resources
- Low coverage of sewerage facilities due to low per capita water supply
- Poor capacity of ULBs to Plan, Design, Construct, Operate and Maintain Sanitation Infrastructure
- Poor & inefficient O&M of sanitation services in most ULBs
- EWS & slums still depends on insanitary latrines and lack toilet facilities leads to prevalence of open defecation and consequent health risks.
- Catalysing private (H/H and Firms) and public investment for sanitation is a challenge

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## Key Issues in Sanitation System

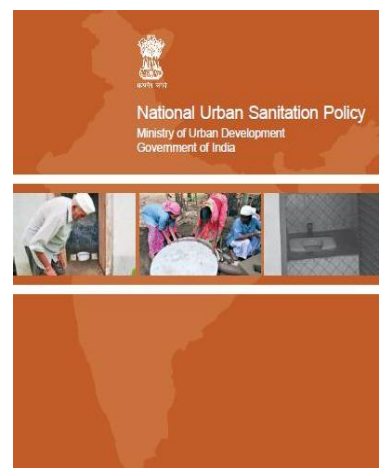
- Septage management is a huge challenge for authorities
- Indiscriminate emptying of septic tank waste in open lands and water bodies causes enormous amount of pollution.
- Sanitation requires huge capital investment and O&M expenses, beyond the capacity of most of ULBs

# National Urban Sanitation Policy

**Vision:** All Indian cities and towns become totally sanitised, healthy and liveable and ensure and sustain good public health outcomes for all their citizens, with a special focus on urban poor and women”

## Goals:

- Awareness generation and behavior change;
- Achieve open defecation free cities;
- City wide Sanitation: Safe disposal of 100% human and liquid waste; Recycle and reuse, septage management and proper O&M.



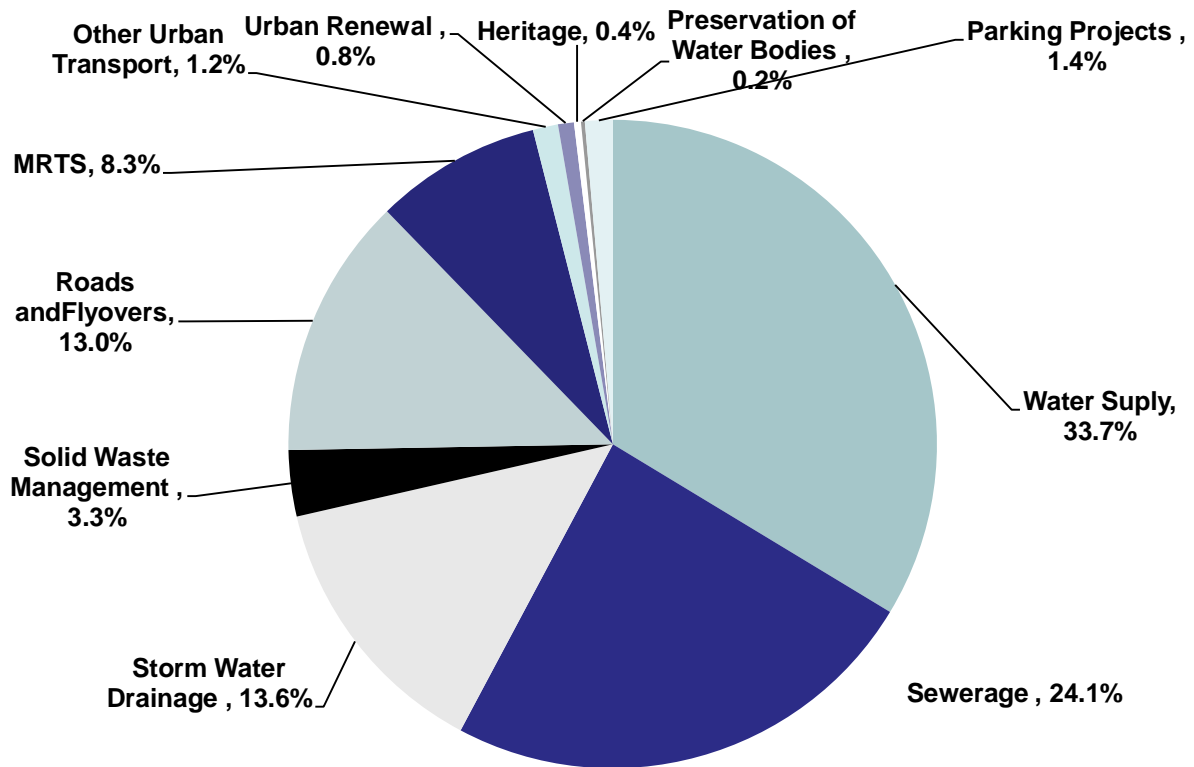
## Water Supply & Sanitation projects sanctioned under JNNURM

PROJECTS SANCTIONED UNDER JNNURM FOR WATER SUPPLY & SANITATION IN CITIES						
SECTOR	UIG (2005-2013)		UIDSSMT (2005-2013)		(A)+(B) Total no of Projects	Total cost of projects
	(A) No of Projects	Cost in Rs. Crore	(B) No of Projects	Cost in Rs. Crore		
WATER SUPPLY	182	22,331	527	9130	709	31,460
SEWERAGE	116	15,269	109	3960	225	19,230
SOLID WASTE MANAGEMENT	44	1,923	63	413	107	2,336
STORM WATER DRAINS	76	8,601	71	985	147	9,586
<b>TOTAL</b>	<b>418</b>	<b>48,124</b>	<b>770</b>	<b>14488</b>	<b>1188</b>	<b>62,612</b>

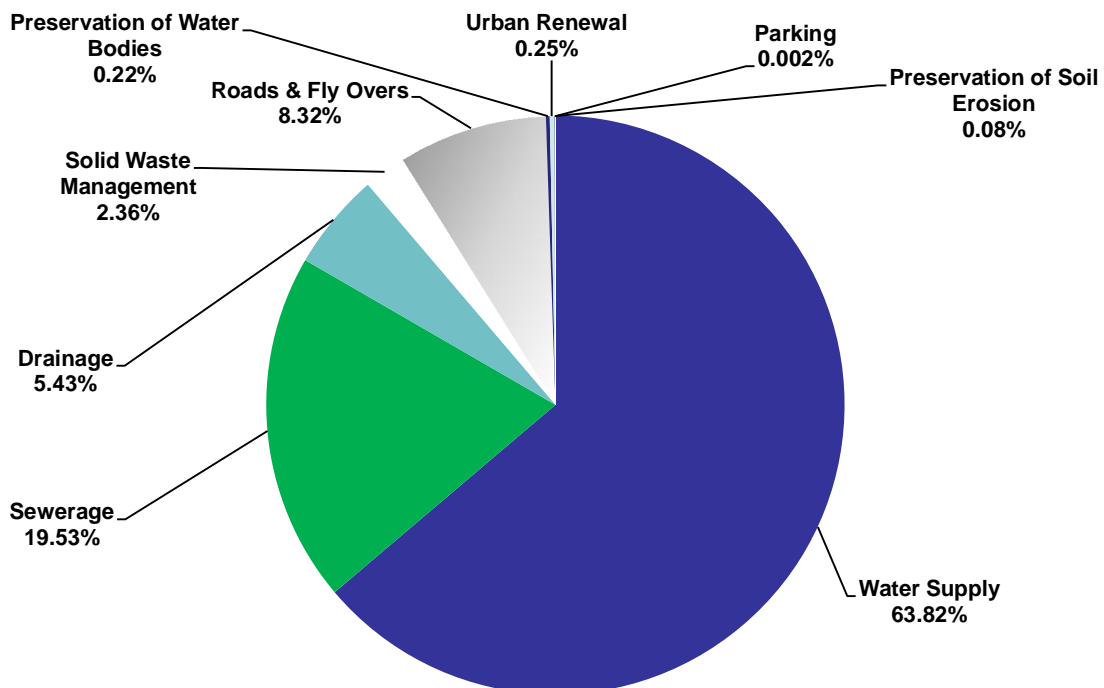
ALL FIGURES ARE IN RS. CRORE



## Sector wise % of funds sanctioned under UIG



## Sector wise % of funds sanctioned under UIDSSMT





## Capital and O&M Expenditure Estimates by HPEC

SECTOR	Investment under JNNURM (2005-2013)	HPEC Estimates (all Fig. are in Rs. Crore)	
		CAPITAL INVESTMENT	OPERATION & MAINTENANCE
<b>WATER SUPPLY</b>	31,460	3,20,908	5,46,095
<b>SEWERAGE</b>	19,230	2,42,688	2,36,964
<b>SOLID WASTE MANAGEMENT</b>	2,336	48,582	2,73,906
<b>STORM WATER DRAINAGE</b>	9,586	1,91,031	34,612
<b>TOTAL</b>	<b>62,612</b>	<b>8,03,209</b>	<b>10,91,577</b>
		<i>Note: HPEC Estimates are at 2009-10 prices</i>	

## Components of Total Urban Sanitation Programme

- The Planning Commission suggested that the inadmissible components of other sanitation options under JNNURM –I may be proposed under JNNURM-Phase-II, as sewerage components are already covered under JNNURM-Phase-I
- The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013 provides inter-alia the following two components for action by MoUD:
  - Prohibition of insanitary latrines and eradication of open defecation
  - Prohibition of hazardous manual cleaning of sewers and septic tanks

## Components proposed under JNNURM-II

In order to comply with the provisions of the Act, the scheme was reframed for providing toilet facilities (conversion and provision of individual, community and public) and septage management at an estimated cost of Rs.21,355 cr.( out of a total of 45,929 cr.) during 12<sup>th</sup> Plan and proposed under JNNURM-II

The following additional components, have been proposed under JNNURM-II:

- Conversion of insanitary latrines to sanitary latrines
- Provision of Individual and Community Toilets for elimination of Open Defecation
- Public Toilets for the floating population
- Septage Management Facility

## CAPITAL INVESTMENT ESTIMATES FOR VARIOUS COMPONENTS ( all fig in Rs. crore)

S.No	Capital Investment Estimates	Class-IA	Class-IB	Class-IC	Class-II	Class-III	Class-IV+	Grand Total
1	Individual Toilets	2,979	3,590	5,765	2,445	3,819	2,556	21,154
2	Community Toilets( average of 50 persons/Seat)	491	552	843	368	484	363	3,102
3	Public Toilets( average of 75 Persons/Seat)	60	136	148	53	59	29	485
4	Septage Management	1,563	3,552	5,285	2,126	2,562	1,549	16,636
5	Total Investment Required	5,092	7,830	12,042	4,993	6,924	4,496	41,377
6	<b>E&amp;O.E Expenses @7% of Total Investment Required:</b>	356	548	843	350	485	315	2,896
7	Project Management Cost(Central /State) @2% of Total Investment Required	102	157	241	100	138	90	828
8	IEC Expenses@2% of Total Investment Required	102	157	241	100	138	90	828
	<b>Grand Total Investment Required</b>	<b>5,652</b>	<b>8,691</b>	<b>13,367</b>	<b>5,542</b>	<b>7,686</b>	<b>4,990</b>	<b>45,929</b>

## Scheme for Mechanical Cleaning of Sewers and Septic tanks(SAMCSS) proposed under JNNURM-II

- As per the decision of CMC in the meeting held on 31st, August, 2012, the Ministry has formulated a “Scheme for Mechanical Cleaning of Sewer and Septic tanks(SAMCSS)” at an estimated cost of Rs. 9,356 crore.
- As suggested by the Planning Commission, the Ministry has proposed to include the aforesaid scheme as a component under JNNURM –II to comply with the provisions of the Employment as Manual Scavengers and their Rehabilitation Act,2013 by provision of mechanical cleaning devices.

## Scheme for Assistance of Mechanical Cleaning of Sewers and Septic Tanks(SAMCSS)

The Scheme would support all the 4,041 statutory towns as per Census, 2011 through:

- 100% Grant-in-aid for procuring Mechanical cleaning equipment for Sewers and Septic Tanks
- One time capital assistance for procurement of equipment's and O&M cost for the first year under the scheme
- Assistance for Training & Capacity Building for the sanitation workers involved in cleaning of sewers and septic tanks

# Thank you

# **“Innovative Urban Sanitation Financing in India”**

**by CEPT University and Dalberg**

# Innovative Urban Sanitation Financing in India

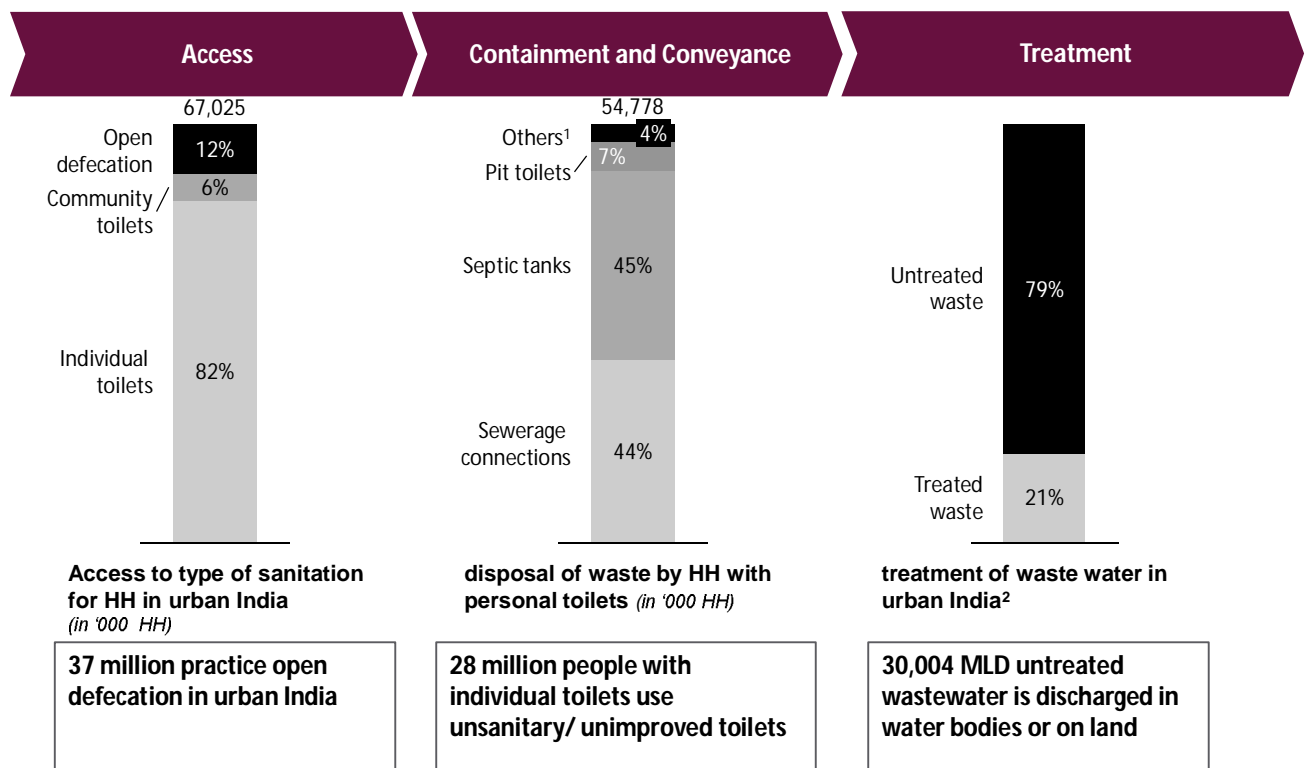
Prepared by CEPT University and Dalberg



Innovative Sanitation Financing Workshop, New Delhi - 23 Jan. 2014

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## There are large gaps in urban sanitation service chain



Note: (1) Others category includes census categories of "pour flush toilets-other systems, night soil disposed into open drain and latrines serviced by humans and animals", (2) based on "Status of Sewage Treatment in India" report by Central Pollution Control Board of India (CPCB), 2005  
Source: Analysis of access, and containment and conveyance is based on information from Census of India 2011

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# The National Urban Sanitation Policy (NUSP), 2008 aims to fulfill these gaps to provide universal sanitation services in urban India

The Ministry of Urban Development's (MoUD) National Urban Sanitation Policy (NUSP), 2008 focuses on improving sanitation facilities across the value chain, generating awareness, and bringing about institutional changes to ensure sustained efforts in sanitation

## Key goals

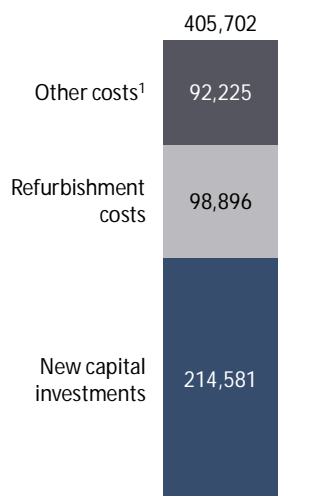
<b>Access</b>	<ul style="list-style-type: none"> <li>• Providing 100% access to improved sanitation in urban India by 2025</li> </ul>
<b>Collection and Conveyance</b>	<ul style="list-style-type: none"> <li>• Extending coverage and ensuring proper functioning of sewerage systems</li> <li>• Promoting proper disposal and treatment of sludge from on site installations</li> </ul>
<b>Treatment and reuse</b>	<ul style="list-style-type: none"> <li>• Promoting recycle and reuse of waste for non potable applications</li> <li>• Ensuring safe collection and disposal of waste</li> </ul>
<b>Awareness</b>	<ul style="list-style-type: none"> <li>• Generating awareness about sanitation and its linkages to public and environmental health</li> </ul>
<b>Institutional changes</b>	<ul style="list-style-type: none"> <li>• Strengthening ULBs to provide sustainable sanitation services delivery</li> <li>• Mainstream planning and implementation related to sanitation</li> <li>• Strengthening policy and regulatory framework particularly for onsite sanitation/FSM</li> </ul>

Source: National Urban Sanitation Policy, 2008

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## Estimates of the investment needed to fill these gaps range from ~2.3 lakh Cr. to 4 lakh Cr. over a 10 year period

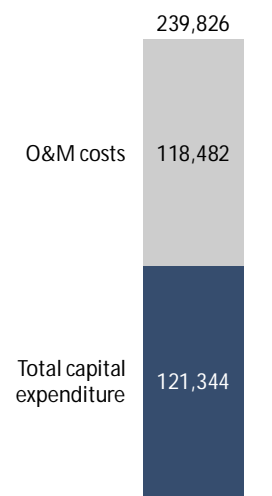
**Total investment required for the Total Urban Sanitation Programme (TUSP) over 10 years**  
(INR. In Cr. at 2013 prices)



Costs are likely to be higher when accounting for Operation and Maintenance (O&M)

The TUSP estimates include providing universal sanitation services to all urban households (HH) covering 72% with sewerage systems and 28% with on site facilities

**Total investment required<sup>2</sup> for sewerage networks in urban India over 10 years as per HPEC<sup>3</sup>**  
(INR. In Cr. at 2012-13 prices)



The HPEC estimates include underground sewerage network for all cities and 100 % collection and treatment of waste water

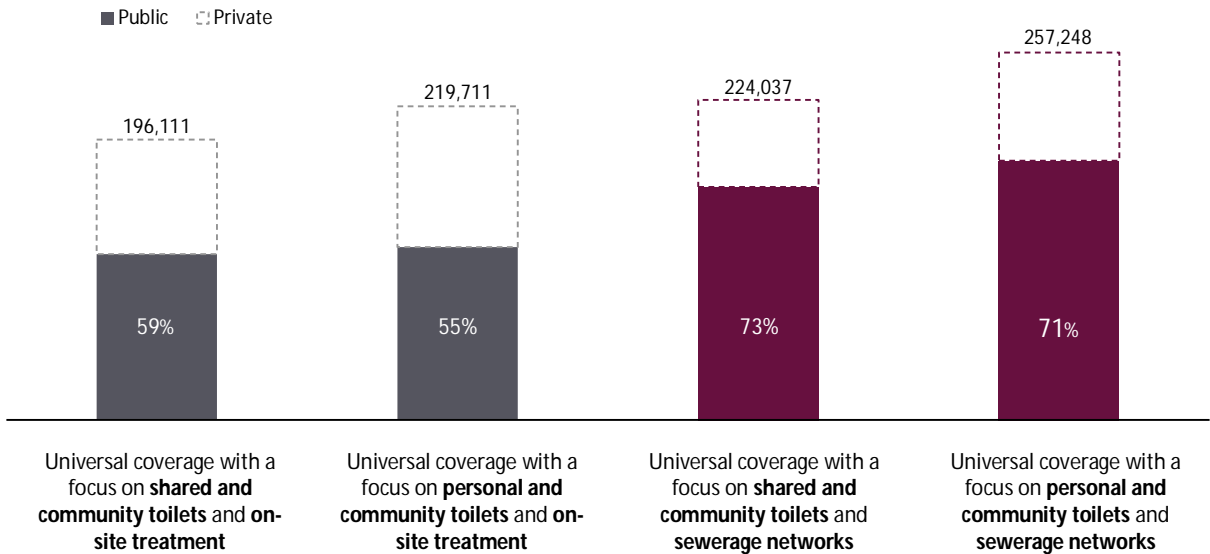
Note: (1) Includes cost escalation, administrative, IEC, capacity building and training costs, cost for mechanical cleaning of tanks and sewers and cost for recycling (2) The total investment required for ten years is assumed to be half of the investment required for 20 years as per HPEC report and inflated to 2013 prices (3) High Powered Expert-Committee for estimating the investment requirements for urban infrastructure services

Source: NUSP report, TUSP data, Dalberg analysis: High Powered -Committee Report on Urban Infrastructure and Services

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# CEPT estimates for achieving universal coverage - between ~2.0 and 2.6 lakh Cr. over 10 years, depending on approach

**Total investment required<sup>1</sup> on new infrastructure for achieving universal sanitation under different scenarios**  
(INR. In Cr. at 2013 prices)

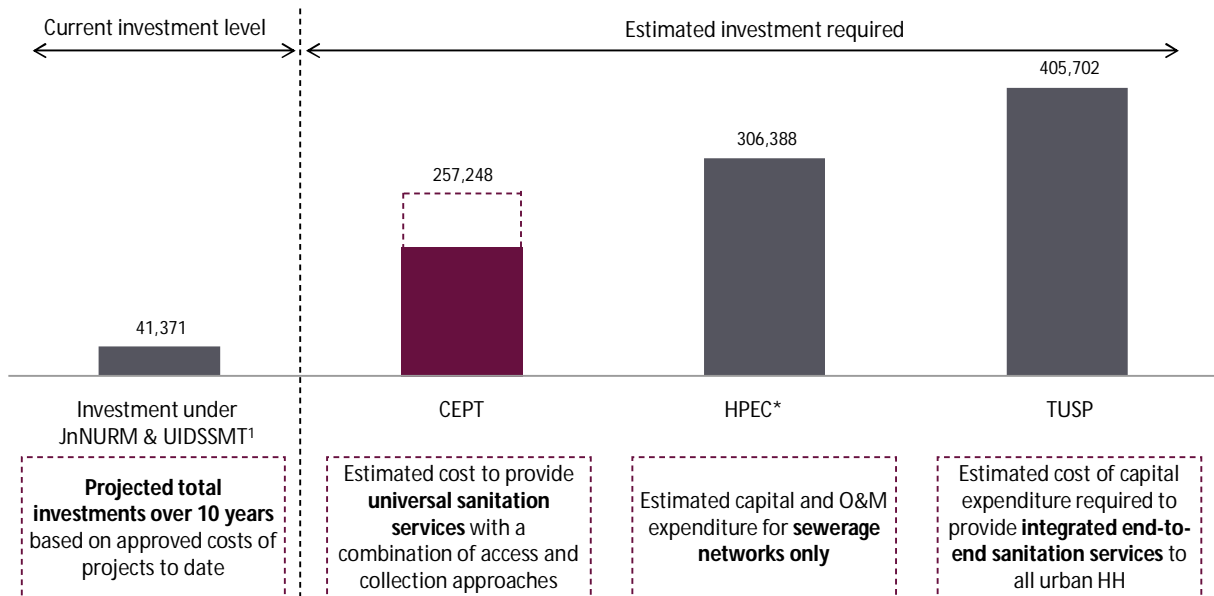


*Investment required is likely to be higher if cost of replacing old infrastructure is considered*

Note: (1) Includes IEC, establishment and project management costs  
Source: CEPT analysis using census information for 2011

# Existing funding under government schemes such as JNNURM and UIDSSMT is unlikely to meet investment requirements to achieve universal sanitation

**Comparison of planned and required investment in sanitation in urban India for a 10 yr. period**  
(INR. In Cr.)

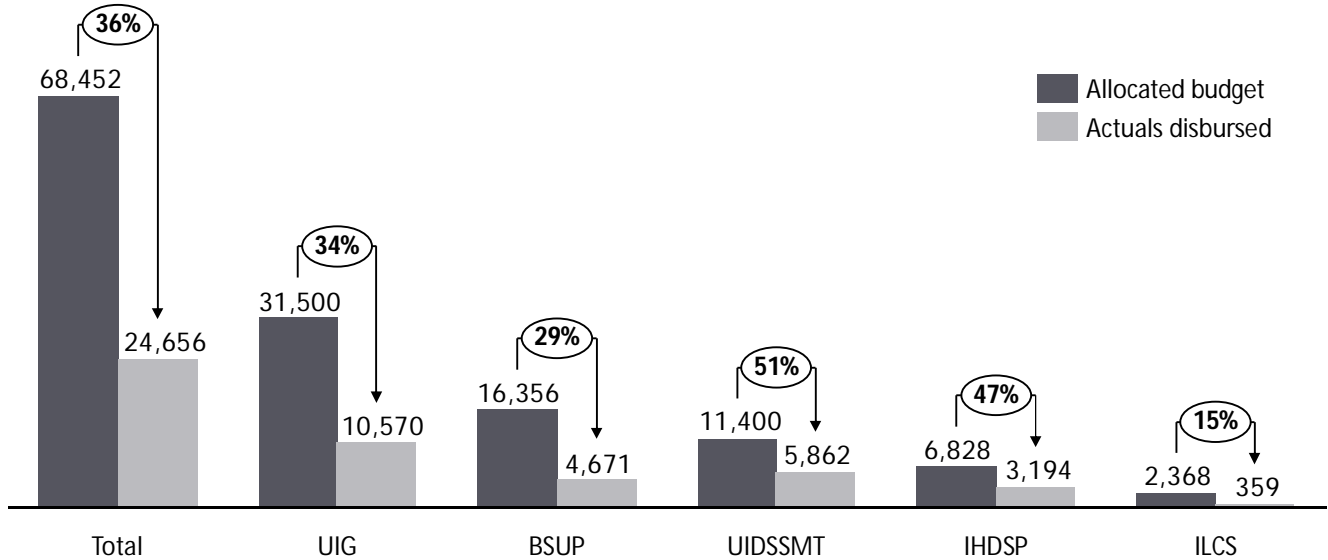


*Flagship government schemes such as JnNURM and UIDSSMT have invested heavily in sewerage projects, however yearly investments will need to be much higher in order to meet requirements*

Note: (1) Projected investments under JnNURM and UIDSSMT assumes that the approved cost will be spent in 10 year period  
\* Escalation at 6% added to HPEC estimates based on 2009-10 prices  
Source: CEPT data, Dalberg analysis

# Less than 40% of the total INR 68,000 crores allocated to central government schemes for urban development has been disbursed

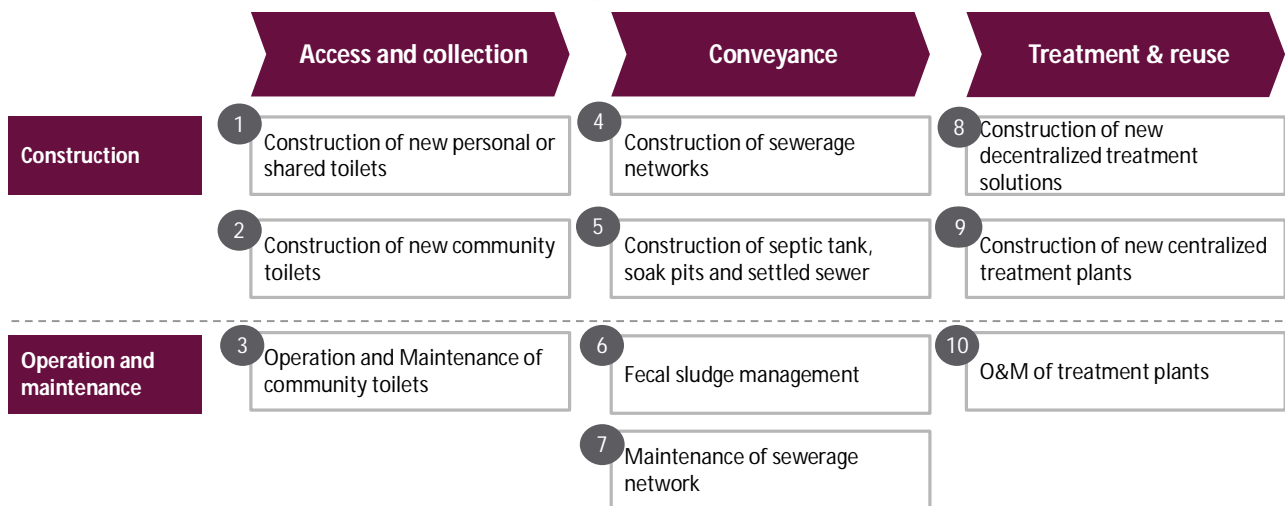
**Cumulative budget for Central government urban development schemes**  
Allocation\* versus expenditure (in Rs. Crore) as reported in 2010



**While the released disbursement is much lower than the allocated amount, total approved project cost is higher than allocations resulting in a large time lag and financing gap for registered projects**

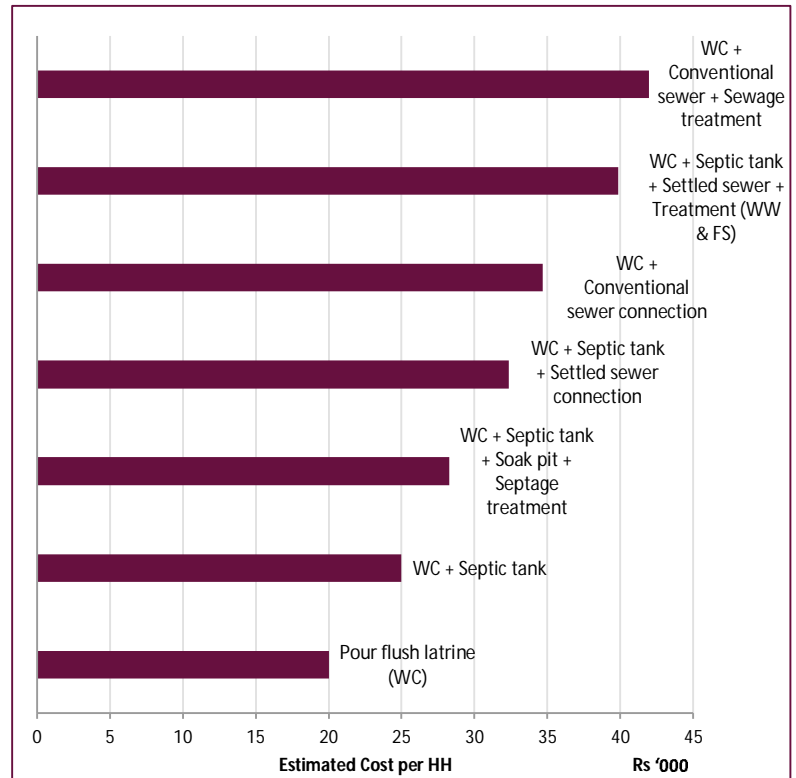
Source: Based on Annual Report 2010-2011, Ministry of Urban Housing and Poverty Alleviation  
\*Total mission allocation for 7 years (2005-2012)

## Unbundling Sanitation Investments across the value chain



# Financing needs vary for different technical solutions

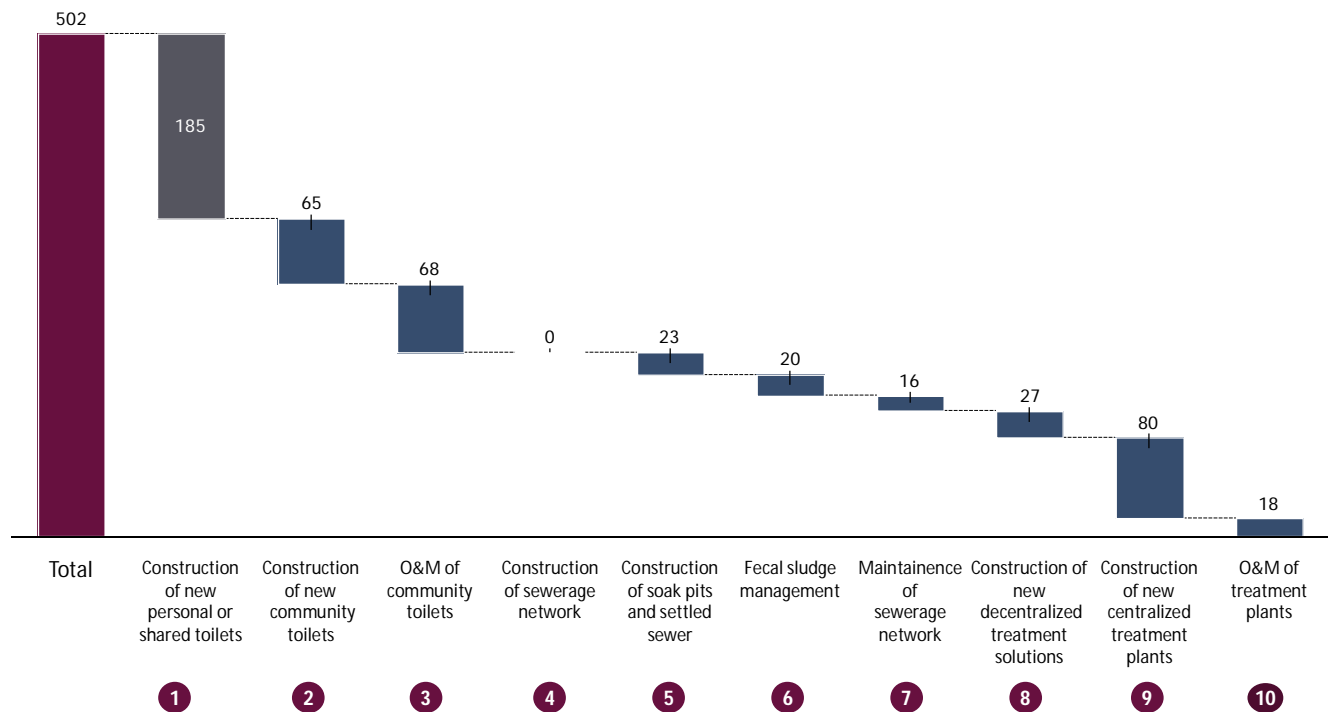
- Program costs will depend on choice of technology (access, conveyance and treatment)
- Cost estimates may vary as per local conditions (soil, topography, terrain)
- Settled sewer and Treatment of waste water (WW) and fecal sludge (FS) may be an attractive alternative to conventional sewer



Source: Based on analysis of unit costs by CEPT.

## Maharashtra – Total Investment required across the value chain –on-site system with FSM

Total investment across the sanitation value chain, INR in Crore, 2013 prices



Source: Dalberg analysis

## Investments in sanitation have generated successful practices for improving access to toilets in Maharashtra

- In Mahad, in the Raigad district of Maharashtra, ~99% of households have access to toilets
- In Satara, the Pune district of Maharashtra, ~98% of households have access to toilets
- These towns serve as great examples of urban centers which have almost achieved open defecation free (ODF) status

### Key strategies

- 1**  
Community-wide awareness drives by the ULB
  - Social awareness through campaigns such as ‘Hagindari Mukta’ in Satara
  - Social pressure through public shaming and fines on those practicing open defecation in Mahad
- 2**  
Strong network of community and shared toilets
  - Extensive network of community toilets covering ~66% of the inhabited area in Mahad
  - Shared toilets were constructed in areas where community toilets were unattractive in both towns
- 3**  
Comprehensive mapping on the status of sanitation
  - Comprehensive “Toilet survey” with detailed information on individual and community toilets – type, location, number, ownership and waste disposal was carried out in both towns
- 4**  
Utilizing private players for operation and maintenance
  - Land for community toilets donated by private owners through ULB efforts
  - Maintenance of community toilets to is sub-contracted to private companies in Satara
- 5**  
Innovative funding sources
  - Sanitation /toilet taxes as a part of property tax were implemented in both cities
  - Funds of local councilors and MLAs were utilized in Satara

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## Innovative Finance potential for sanitation

# Innovative financing instruments have the potential to expand funding, improve effectiveness and support new business models

## Key benefits of innovative financing

### Increased sources of financing

- Enables players such as social investors and corporates, who are not traditionally associated with debt or grant funding for infrastructure, to enter the space
- Players are incentivized to enter the space because of the availability of financial instruments matching their agenda, risk appetite and goals

### Increased effectiveness of funding

- Minimizes wasteful expenditures and increases the efficiency of investments through the focus on service delivery to achieve pre-defined outcomes
- Encourages rigorous monitoring and evaluation, hence ensuring professionalism along with better returns on investments

### Promotes new models in sanitation

- Allows stakeholders to experiment with new, innovative sanitation technologies such as decentralized approaches to supplement sewerage efforts

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## Use a combination of traditional and innovative financing instruments to invest in sanitation

Funding instrument	Description	Sources of funding								
		Governments	Bi and Multilateral donors	Foundations	Corporate CSR	Commercial banks/ FIs	Infrastructure finance companies	MFIs/SHGs	Impact investors	Potential beneficiaries
Grants	Non repayable fund, traditionally dominant in development space	✓	✓	✓	✓					
Debt	Short/long term credit		✓			✓	✓	✓		
Equity	Equity investments				✓		✓		✓	
Social impact bonds	Commitment from a donor to fund an improved social outcome	✓	✓	✓					✓	
Performance based funding	Funding by donors based on assessments of results against targets	✓	✓	✓	✓					✓

Traditional Financing Innovative Financing

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# Innovative Finance : Social Impact Investments

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## Social impact bonds (SIBs) involve a commitment from donors to support a successful social outcome

- A contract with donors to pay for an improved social outcome leading to long term savings for the donor
- Initiated in 2010 in the U.K, the application of SIBs has now expanded to many projects in both developing and developed countries

### Process of Social impact bonds

#### Commitments of funds by donors

- A coalition of donors commits to pay a specified amount to a trust if the proposed project achieves targets

#### Mobilizing capital from social investors

- Social investors make upfront payment to the trust to execute the proposed project

#### Project execution

- The resources are forwarded to an executing company which carries out the proposed activities intended to benefit the end stakeholders

#### Independent assessment

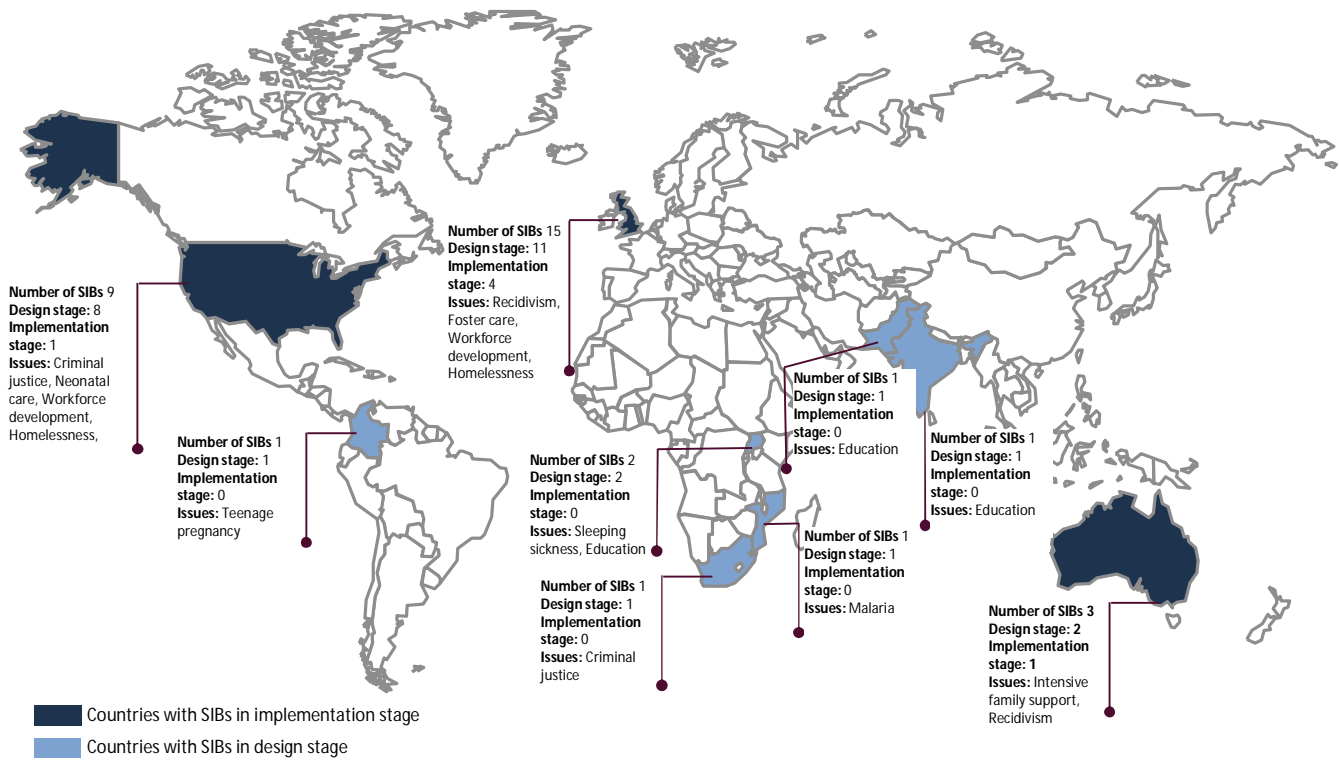
- An independent assessment of the project is carried out to measure the outcomes against time bound targets to inform the stakeholders about the status and impact of the project

#### Disbursal of funds

- If the project meets its targets, the donor coalition releases the funds to the trust which pays back the social investors along with promised returns
- If the targets are not met then investors only receive part payment hence suffering a loss on investments

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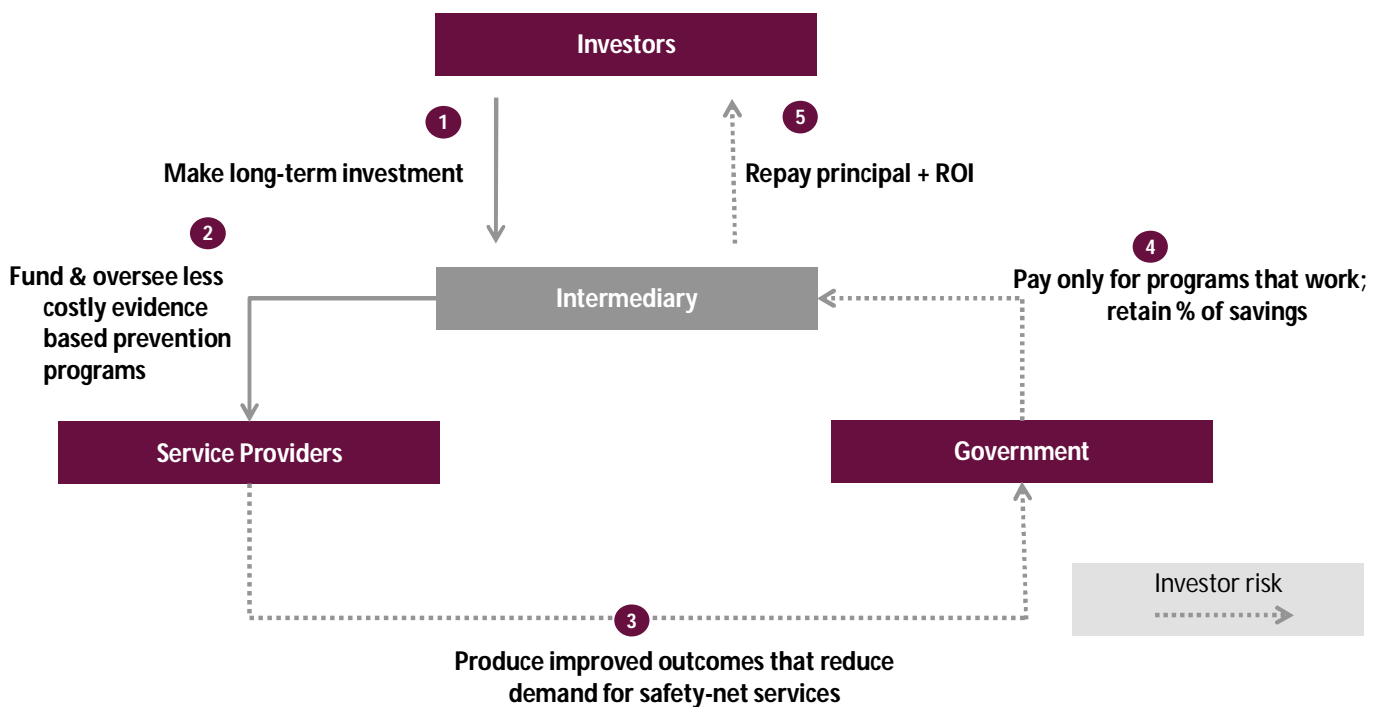
# SIBs have used in developed countries as well as developing countries to generate investment for a range of social issues



Source: Instiglio database, Dalberg research

## Social Impact Bond Mechanics for new investments and service delivery

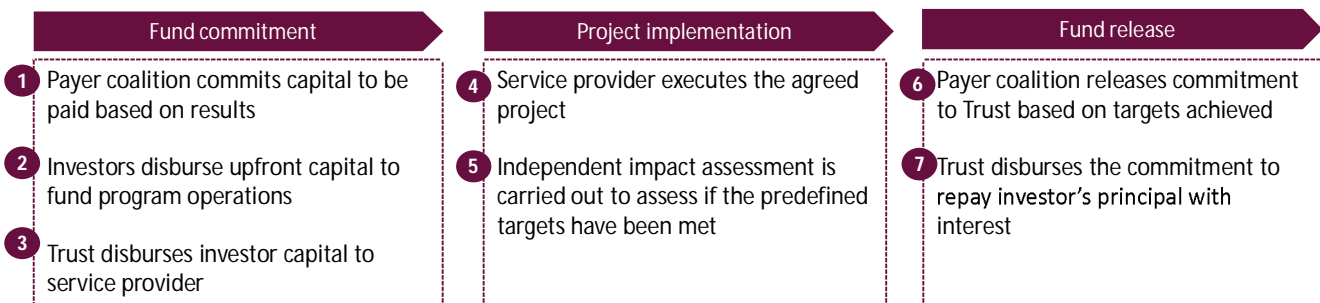
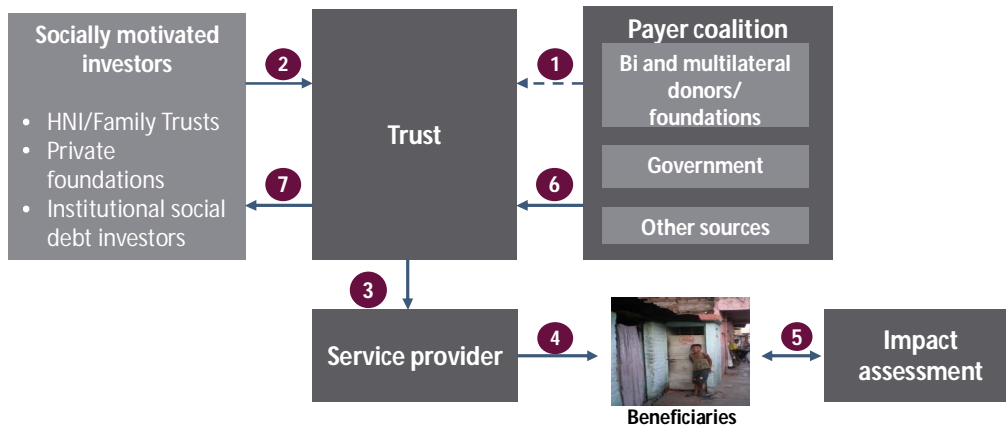
### Illustration – Social Impact Bond Mechanics



Source Adapted from Social Finance (2012), "A new tool for scaling impact: How social impact bonds can mobilize private capital to advance social good", supported by Rockefeller Foundation, figure 1, p.12



# Financial Flow in a Potential Sanitation Social Impact Investment programme



Source: Dalberg analysis

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## Innovative Finance: Performance Based Grant Funding

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# Performance based funding

- Funding is based on an assessment of results against time bound goals
- Emerged in 1970s in the US education sector and has now been adopted by organizations such as GAVI alliance and European commission

## Process of Performance based funding

### Finalizing goals and details of the project

- The trust and the donor commonly decide the desired impact to be generated by the project
- They then negotiate a detailed MoU, terms of contract, payment structure among other details

### Execution of project

- The trust executes or outsources the execution of the project to a third party to achieve the stated outcomes

### Assessment of results

- The impact of the project is assessed independently against the time stated goals to determine success

### Disbursal of funds

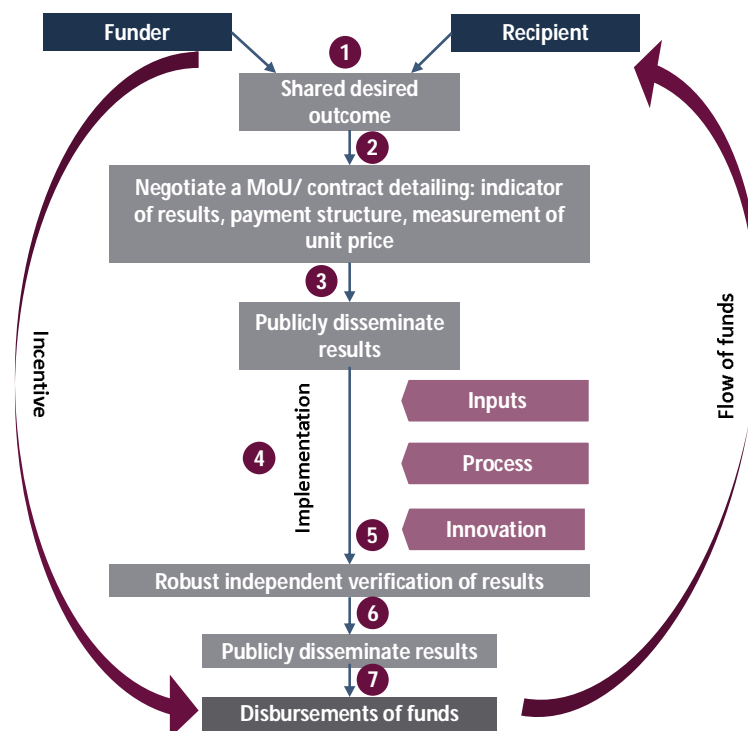
- Based on outcomes achieved, the donor releases funding to the trust in the form of long term grant or debt depending on the contractual agreement

Source: Dalberg analysis

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## Performance based funding involves a process of fund commitment, implementation, evaluation and disbursement

Illustration of example financial flows in Performance based funding



Source: DFID, Dalberg analysis

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# In India, performance based funding has been used in healthcare in Karnataka, and could be explored to fund sanitation models

## Background

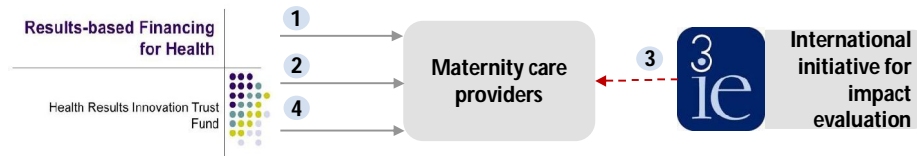
Health Results Innovation Trust Fund (HRITF) is funded by the government of Norway and U.K. with commitments totaling USD 500 million till 2022. HRITF finances a variety of activities to enhance access and improve quality of basic health services using results based financing mechanisms

## India program overview

**Size:** \$0.4 million

**Purpose:** (1) To improve key health outcomes among pregnant women and infants in the catchment area: post-partum hemorrhage, per-eclampsia, sepsis, and neonatal death

**Location:** Karnataka, India



1 The first payment is made when the performance agreement is signed between HRITF and maternity care providers

2 The second payment is made after 3 months to maternity care providers as a continuation incentive

3 A review is conducted of agreed performance targets and actual achievements in defined areas by International Initiative for impact evolution

4 Based on this assessment, the final payment is made to service providers based on indicators tied to their incentives

Source: HRITF India, Dalberg research

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## Innovative Finance: Corporate Social Responsibility (CSR) Funds

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## CSR - The Companies Bill, 2013 allows new models of social engagement

The Parliament of India has recently approved the new Companies Bill, which mandates that large companies spend 2% of their three-year average annual profit towards corporate social responsibility (CSR)

### Key provisions of the bill

- 1 Every company having net worth of INR 5000 million or more\* during any financial year is mandatorily required to spend at least 2 percent of the average net profit of past three financial years on specified CSR activities.
- 2 With regard to implementation, only project based investments, and not mere donations, will be accepted as CSR. Baselines surveys, social impact assessment and meticulous evaluation including documentation is mandatory along with training and re orientation of the staff.
- 3 Though the CSR provisions under the Act required minimum 3 directors for constitution of CSR committee to comply with the new provisions.
- 4 CSR projects / programs may also focus on integrating business opportunities with social and environmental priorities and processes in order to create shared value.

### Implications

- The funding pool for development activities becomes larger.** Around 8,000 companies would fall under the Bill's ambit and this mandate would translate into an estimated CSR spending of **Rs 12,000-15,000 crore annually.**
- The onus to report impact will create more strategic and focused CSR portfolios.** Corporate houses will begin to look beyond the traditional lens of "charity" and develop succinct CSR strategies with potential for large-scale social and economic impact.
- Involvement of company executives will ensure strong alignment with professional values of the business units.** CSR units will no longer remain siloed units within large corporates and can be well integrated to the company's core business operations.
- CSR activities will be more sustainable and aligned to business strategy.** Companies will be able to fund for-profit social enterprises and engage in activities that 'indirectly' promote their brand value.

Challenge to direct CSR funds to Sanitation – many competing activities

Note: \* Or turnover of INR 10000 million or more or net profit of INR 50 million or more

Source: <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/taxnewsflash/Documents/india-sept20-2013no4companies.pdf>  
[http://articles.economicstimes.indiatimes.com/2013-09-05/news/41803586\\_1\\_csr-corporate-social-responsibility-india-incf](http://articles.economicstimes.indiatimes.com/2013-09-05/news/41803586_1_csr-corporate-social-responsibility-india-incf)

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## Some of the major Corporates in India have invested in Water and Sanitation Projects as a part of their Corporate Social Responsibility (CSR) (1/2)

	Company	Description	Budget For CSR (2012-2013)	Geographical focus
FMCG	Hindustan Uniliver Ltd. (HUL)	<ul style="list-style-type: none"> <li>Unilever Foundation and Domestos, HUL's toilet hygiene brand support UNICEF's Community Approaches to Toilet Sanitation (CATS) Program.</li> <li>CATS aims to promote demand for Sanitation through Community Awareness</li> <li>Domestos educates customers and raises awareness about the Sanitation Crisis.</li> </ul>		India, Gambia, Ghana, Nicaragua, Nigeria, Pakistan, Philippines, South Sudan, Sudan and Vietnam.
	Nestle	<ul style="list-style-type: none"> <li>Sponsors the construction of sanitation facilities for female students in village schools around their factories.</li> <li>37 sanitation facilities invested in by Nestlé so far, benefiting over 15,000 female students.</li> </ul>		Tamil Nadu, Karnataka, Haryana, Punjab, Uttarakhand, Himachal Pradesh
	Amul	<ul style="list-style-type: none"> <li>Has initiated a Rural Sanitation Campaign with the aim of making the milk producers community OD free.</li> <li>Has prepared a model low cost toilet block which costs Rs. 11,500 per unit.</li> <li>Provides interest free loans to the milkmen to purchase the toilet block. The loan amount is recovered by deducting Rs. 100 from the monthly salary.</li> </ul>		Gujarat
Cement	ACC Ltd.	<ul style="list-style-type: none"> <li>Aims to provide better Sanitation facilities for families living around their factories.</li> <li>Spent 1.48 Cr in 2012 on health and sanitation programs. Built 7 community toilets and 310 household toilets.</li> <li>Installed new sewage treatment plants in Jamul and Chanda.</li> </ul>		Maharashtra, Jharkhand

Source: HUL website ([www.hul.co.in](http://www.hul.co.in)), Nestle Website ([www.nestle.in](http://www.nestle.in)), Amul website ([www.amul.com](http://www.amul.com)), ACC Ltd. Website ([www.acclimited.com](http://www.acclimited.com)), Dalberg analysis

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## Some of the major Corporates in India have invested in Water and Sanitation Projects as a part of their Corporate Social Responsibility (CSR) (2/2)

	Company	Description	Budget For CSR (2012-2013)	Geographical focus
<b>Cement</b>	<b>Ambuja Cement</b>	<ul style="list-style-type: none"> <li>The Ambuja Cement Foundation(ACF) works to make villages open defecation free (ODF), build drainage systems, construct soak- pits and septic tanks and raise awareness about health and sanitation.</li> <li>Has worked with the Govt. of Uttarakhand in the field of sanitation. ACF helped construct 40 low cost toilets in Navagram, Panjehra and Dugri villages.</li> <li>In Maharashtra, ACF collaborated with UNICEF and the Zilla Parishad of Chandrapur, to implement an intensive program on sanitation.</li> <li>In 2013, constructed 964 Toilet blocks , 2 Sulabh Sauchalayas and 793 soak pits in Maharashtra.</li> </ul>		Maharashtra, West Bengal, Punjab, Rajasthan
<b>Public Sector Undertaking (PSU)</b>	<b>GAIL</b>	<ul style="list-style-type: none"> <li>Drinking water and Sanitation is one of seven focus areas for their CSR expenditure. Has taken up projects for improving local hygiene and sanitation practices by constructing nalas and improving the sewerage system in areas where GAIL has its presence.</li> <li>Has collaborated with Sulabh Sanitation Mission Foundation in the villages of Guna (Madhya Pradesh) and Auraiya (Uttar Pradesh) to sensitize villagers on the importance of sanitation.</li> <li>The organization has also initiated projects that contribute to improving local sanitation practices through construction of nallahs and pipelines and reconstruction of drainage systems in rural areas near its project offices.</li> </ul>	<b>73 Cr</b>	Uttar Pradesh, Madhya Pradesh
	<b>NTPC</b>	<ul style="list-style-type: none"> <li>Promotes development of sanitation facilities in areas close to its power stations.</li> <li>Kahalgaon (BIHAR) station has taken up infrastructure development work including construction of facilities for sanitation and drinking water in 6 villages.</li> </ul>		Bihar

Source: Ambuja Cement Website ([www.ambujacement.com](http://www.ambujacement.com)), GAIL Website ([www.gail.nic.in](http://www.gail.nic.in)), NTPC Website ([www.ntpc.co.in](http://www.ntpc.co.in)), Dalberg analysis

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## Innovative Finance: Leveraging public funds; Microfinance; Venture capital funds

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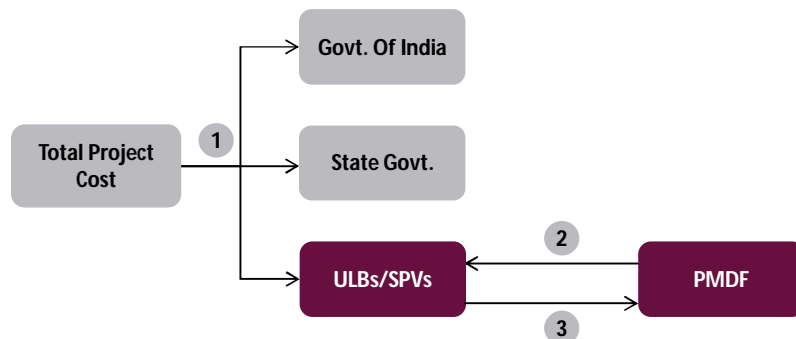
# Pooled Municipal Debt Obligation Facility (PMDOF) has been created by IL&FS and IIFCL to invest in Urban Infrastructure Projects.

## Project Overview

Structured through a partnership of 15 Banks/Financial Institutions including IL&FS to supplement government funding to urban local bodies(ULBs) and Special Purpose Vehicles (SPVs) promoted under PPP arrangements, to implement urban infrastructure projects for Water Supply and Sewerage, Solid Waste Management etc. under the Jawaharlal Nehru National Urban Renewal Mission (JNNURM).

## Salient Features

- Corpus: Rs. 2750 Cr. (2006) extended to Rs. 5000 Cr ( 2011)
- Interest Rate: Floating Rate based on Current Market Conditions
- Tenor: 13 years (Maximum)
- Moratorium: 3 years (Maximum)



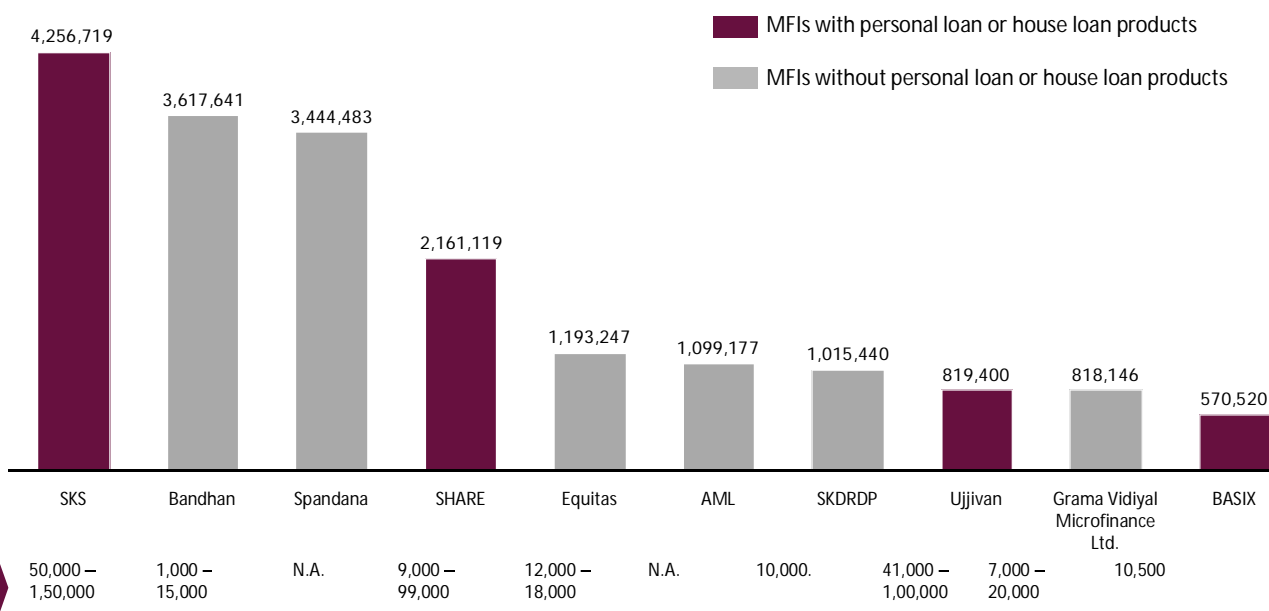
- 1 Under JnNURM, 50% of total project funded by Govt. Of India, 30% by State Govt. and 20% by ULBs.
- 2 PMDF provides commercial debt to the ULBs/SPVs to provide financial assistance.
- 3 The ULBs/SPVs are expected to repay the debt at the market level interest rate within the stipulated tenor.

Source: IL&FS website( iflsindia.com), iuiml.com, Dalberg Analysis

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## Of the largest MFIs in India a few have non income generating loan products

Top 10 MFIs by number of borrowers  
As of 2011



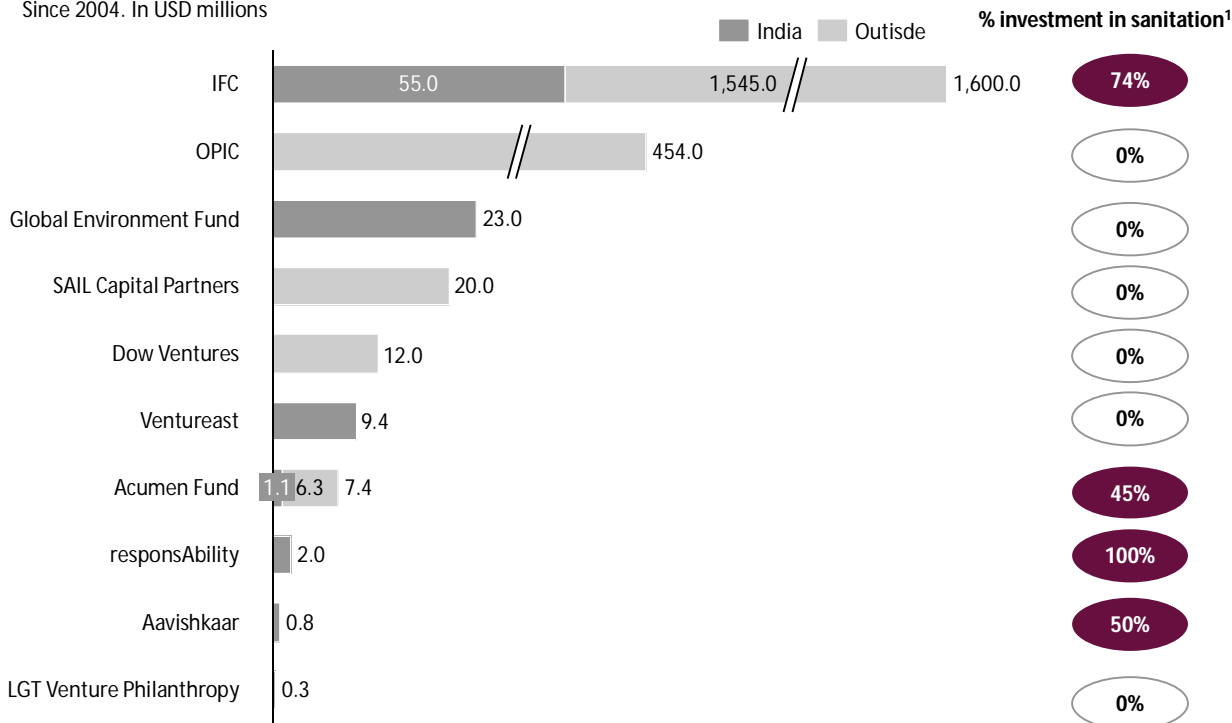
Source: IL&FS website( iflsindia.com), iuiml.com, Dalberg Analysis

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# There are only a few funders who have invested purely in sanitation; of the total investment in water and sanitation only ~4% is in India

## Investments made by PE/VC in decentralized models in water and sanitation

Since 2004. In USD millions



Note: List of social investors were selected from among the member of Global Impact Investing Network and Dalberg's proprietary knowledge

<sup>1</sup>Includes investments in 'Water and sanitation'. Excludes investments only in water

\*Other investments of undisclosed amount made in water and sanitation

Source: Dalberg analysis

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## Social investors who have made investments in water are also a good source for potential organizations to raise funding

Investor	Investments made	Description of investors
<b>OPIC</b>	<ul style="list-style-type: none"> <li>• USD 250 million in DISI Water PSC</li> <li>• USD 200 million in Fixed Rate Funding and Liquidity</li> <li>• USD 3 million in Sweet Water Pakistan</li> <li>• USD 0.8 million in Natura Beverage</li> <li>• USD 0.3 million in Golden Cypress Water</li> </ul>	Overseas Private Investment Corporation is the U.S. government's development finance institution which works with the U.S. private sector to help them gain footholds in emerging markets and catalyse revenues. It provides investors with financing, guarantees, political risk insurance among others
<b>Global Environment Fund</b>	<ul style="list-style-type: none"> <li>• USD 23 million in Saisudhir Infrastructures</li> <li>• Undisclosed investments in Duoyuan Global Water and Companhia de Saneamento do Parana</li> </ul>	Global Environment Fund is a global alternative asset manager dedicated to energy, environment and natural resources sectors. They seek to deliver favourable risk adjusted investment returns through a diverse portfolio comprising of organizations with high growth potential
<b>SAIL Capital Partners</b>	<ul style="list-style-type: none"> <li>• USD 10 million in WaterHealth International</li> <li>• USD 10 million in M2 renewables</li> </ul>	SAIL Capital Partners is an investor in energy and water technology companies with a focus on sustainable innovation and growth. It seeks to identify high return opportunity at relatively low risk and co invests with a high value added partner
<b>Dow Ventures</b>	<ul style="list-style-type: none"> <li>• USD 2 million in Clean Filtration Technology</li> <li>• USD 10 million in WaterHealth International</li> </ul>	Dow Ventures is an investment arm of the Dow Chemical company which focuses on pursuing strategic investments that enable and accelerate Dow's business growth by targeting sectors like water, renewable energy and agriculture
<b>Ventureast</b>	<ul style="list-style-type: none"> <li>• -USD 9 million in Saisudhir infrastructures</li> </ul>	Ventureast is an Indian centred VC fund with investments across sectors and across stages of business. They help the supported organizations through infusion of equity capital, mentoring and provision of networking opportunities
<b>LGT Venture Philanthropy</b>	<ul style="list-style-type: none"> <li>• USD 0.25 million in Driptech</li> </ul>	LGT Venture Philanthropy is an impact investor supporting organizations with positive social and environmental impact. They help the supported organizations through financial capital, mentoring and networking opportunities

Source: Dalberg analysis

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# The portfolio of impact investors in sanitation in India is focused towards financing decentralized models of sanitation

Investor	Investments made	Description of investments
<b>Acumen Fund</b>	<ul style="list-style-type: none"> <li>• USD 1 million in Guardian in India</li> <li>• USD 0.75 million in Ecotact in Kenya</li> <li>• USD 0.5 million in Sanergy in Kenya</li> </ul>	Acumen Fund has provided patient capital to Guardian in India which is an MFI focused on micro lending to households to purchase water and sanitation assets. In Kenya, Ecotact is focused on construction of community toilets and Sanergy is focussed on the entire sanitation value chain from access to sustainable disposal
<b>Aavishkaar</b>	<ul style="list-style-type: none"> <li>• Total investment of 0.8 million in Saraplast and WaterLife</li> </ul>	Aavishkaar has taken a 21% stake in Saraplast which provides portable toilet sanitation services in communities to tackle the issue of open defecation. Aavishkaar has also taken a stake in WaterLife which operates mini water purification plants in rural areas
<b>responsAbility</b>	<ul style="list-style-type: none"> <li>• 2 million in Saraplast</li> </ul>	responsAbility invested in Saraplast which provides portable toilet sanitation services in communities to tackle the issue of open defecation. The investment is geared to help the company to increase its footprint to achieve scale
<b>IFC</b>	<ul style="list-style-type: none"> <li>• 5 million in Vishwa Infrastructures and Services Pvt. Ltd.</li> <li>• 15 million in Ramky Infrastructure</li> </ul>	<p>IFC has provided long term debt to Vishwa infrastructures, a turnkey contractor involved in developing integrated water supply and waste water projects. It has also provided equity investment and debt to Ramky infrastructure, a company working the sector of waste treatment and management.</p> <p>Going forward, IFC has plans to massively scale up investments in water and sanitation space with -USD 300 million committed in fiscal year ending 2012 alone</p>

Source: Dalberg analysis

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## These innovative financing options could be used to support new business to supplement current efforts



### 1 Construction of individual/shared / community toilets financed by MFI

- Shared toilets constructed and operated by micro entrepreneurs in slums
- MFIs fund micro entrepreneurs, who repay loan through revenues from toilet users



### 2 Adoption of a community for decentralized waste treatment solution by a Corporate (CSR)

- A corporate adopts the treatment of waste of a community (near a plant or area of interest)
- Decentralized technology of waste treatment is adopted (DEWATS) with an NGO as an executing agency



### 3 Fecal sludge management as a Public Private Partnership (PPP)

- ULBs contract private players for regular cleaning of septic tanks and safe disposal of waste
- The PPP is a performance based grant with payment released after a certain pre- defined outcome has been met

Source: Dalberg analysis

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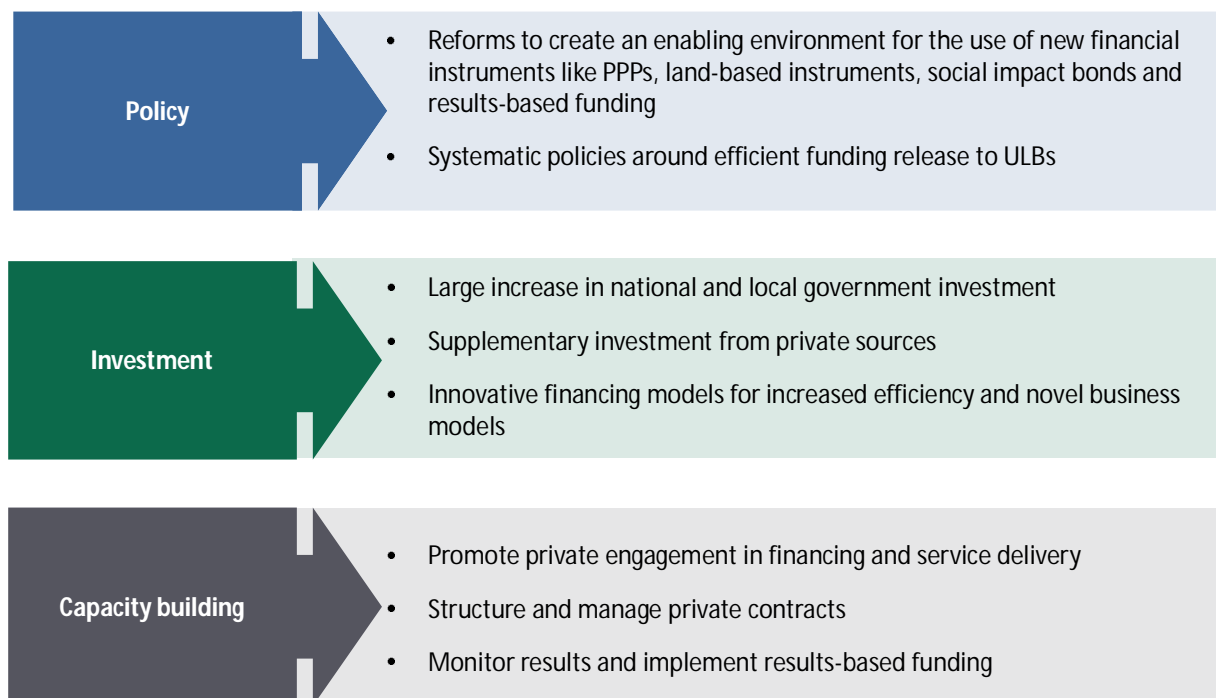


## A combination of traditional and innovative financing instruments are potentially available for investment in key sanitation outcomes

Key Sanitation Outcomes	Possible Funding instruments	Sources of funding								
		Governments	Bi and Multilateral donors	Foundations	Corporate CSR	Commercial banks/ FIs	Infrastructure finance companies	MFIs/SHGs	Impact investors	Potential beneficiaries
Open Defecation Free City/ communities	Social impact bonds	✓	✓	✓					✓	
	Performance based challenge fund for cities/ communities	✓	✓	✓	✓			✓	✓	✓
Fully sanitized city (all waste safely collected, treated and reused)	PPP for integrated or unblundered contracts (FSM, public toilets, settled sewers, STPs)	✓			✓	✓	✓			✓
	Social impact bonds	✓	✓	✓	✓				✓	
	Performance based (output based) grants to cities	✓	✓	✓						✓

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## Implementation of these models requires a shift in policy, accompanied by increased investment and capacity building



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Thank you

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**“Finance for Urban Basic Services –  
Lessons, Key Opportunities and  
Constraints”**

**by Centre for Policy Research**

# Finance for Urban Basic Services – lessons, key opportunities and challenges

Shubhagato Dasgupta, CPR, Jan 23, 2014



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## Financing basic services - National Efforts

SNo.	Five Year Plan	Year (s)	Name of the Scheme
1	II	1956-61	Urban Community Development (UCD)
2	III	1961-66	Sites and Services
3	IV	1969-74	Environmental Improvement of Urban Slums (EIUS), Accelerated Rural Water Supply Programme (ARWSP)
4	V	1974-79	Urban Land (Ceiling & Regulation) Act, Minimum Needs Program (MNP), Integrated Development of Small & Medium Towns (IDSMT)
5	VI	1980-85	Urban Basic Services Programme, Integrated Low Cost Sanitation Scheme (ILCS)
6	VII	1985-90	Urban Basic Services for the Poor (UBSP), Central Rural Sanitation Program (CRSP), Nehru Rozgar Yojana (NRY). Ganga Action Plan
7	VIII	1992-97	Accelerated Urban Water Supply Programme (AUWSP), Mega-City Scheme, National Slum Development Programme. National River Conservation Program
8		1997-2002	Valmiki Ambedkar Awas Yojana (VAMBAY), Total Sanitation Campaign (TSC)
9	X	2002-2007	Nirmal Gram Puraskar (NGP) - 2003
10	X + XI	2004-14	CCF, URIF, Jawaharlal Nehru National Urban Renewal Mission (JNNURM), National Urban Sanitation Policy (NUSP)
11	XI	2009-14	Rajiv Awas Yojana (RAY), National Urban Livelihoods Mission (NULM), JNNURM – 2?

1<sup>st</sup> Period 1950 to the 74 CAA

2<sup>nd</sup> Period 1992 to the JNNURM

3<sup>rd</sup> Period JNNURM onwards

# Past National Programs : Steady progression

	EIUS 1989	ILCS 1980	CRSP	UBSP 1990	NRCP	NSDP 1996	TSC	VAMBAY 2001	JnNURM 2005	AHIP 2009	ISHUP 2009
~Size USD Mil	150	75 (470)	140	30	250 (1000)	775	1000 (4500)	200	13,333 (5350)	1100	132
Shelter						✓		✓	✓	✓	✓
Urban Basic Services	✓	✓		✓	✓	✓		✓	✓		
Community Infra	✓			✓	✓	✓	✓	✓	✓	✓	
Livelihood				✓							
Land & Tenure				✓					✓		
Policy Changes									✓		
Access to credit								✓			✓
Individual Toilet Funding		✓	✓	✓		✓	✓	✓		✓	✓
PPP									✓	✓	
Scale of the programme											

In JNNURM a program for urban infrastructure improvement 40% of the resources have been allocated for slum upgrading and housing

3

## Important City (or) State level initiatives

	Indore SNP	Parivartan Ahmedabad	APUSP	SRA Mumbai	Alandur Sewerage Project	Mumbai Slum Sanitation Program	MMSS M-MP	Ujal Nirmal Abhiyan
~Size USD Mil	13	4	170	NA	8	30 (300)	80	~525 (15yrs)
Shelter				✓				
Urban Basic Services	✓	✓	✓	✓	✓	✓	✓	✓
Community Infra	✓	✓	✓	✓	✓	✓	✓	✓
Livelihood	✓	✓	✓					
Land & Tenure		✓		✓	✓		✓	
Policy Changes		✓			✓			✓
Access to credit	✓	SEWA Loans	✓					
Individual Toilet funding	✓	✓		✓			✓	✓
PPP					✓	✓		
Scale of the programme								

4

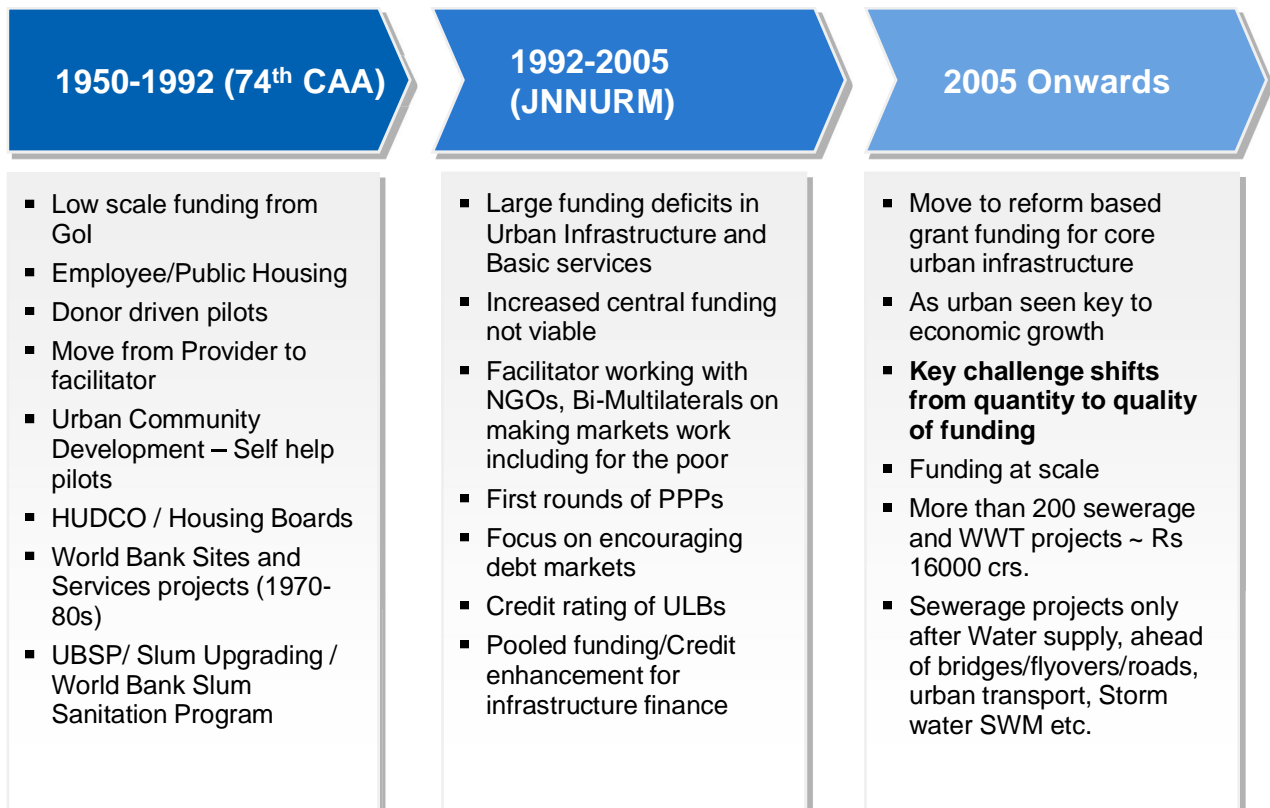
# Basic services - Institutional evolution over the years

1950s till 74th Amendment → 74th CAA till JnNURM → JnNURM onwards

	Funds		Functions		Functionaries	
	WS and Sewerage	SWM + Com Toilets	WS and Sewerage	SWM + Com Toilets	WS and Sewerage	SWM + Com Toilets
Central Government	●	●			●	●
State Government	● ● ●	● ● ●	● ● ●		● ● ●	●
Local Government				● ● ●		● ● ●

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## Stylised facts for the three periods



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## Lessons for future program design

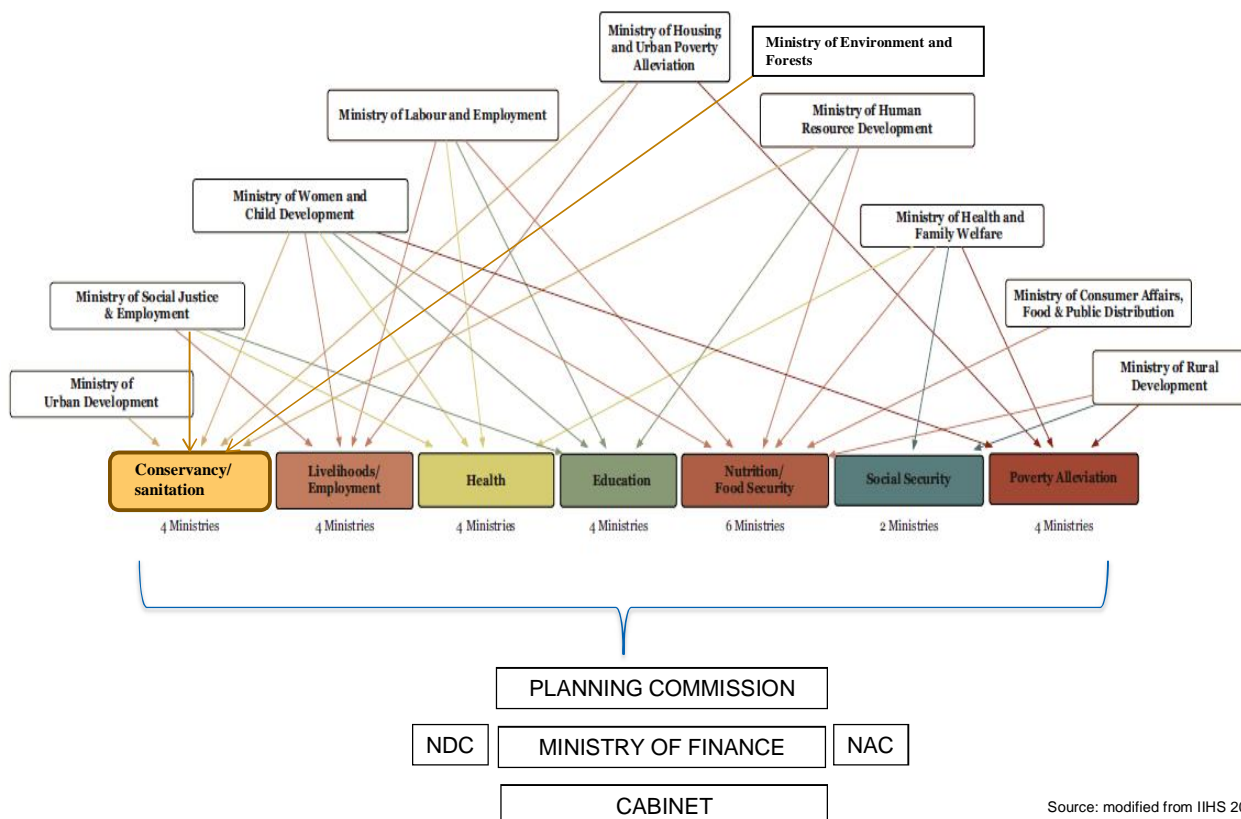
- Scale of funding very important
- However, larger amount of top down central funds intrinsically provides biases which need to be corrected through program design which include
  - Reducing incentives to leverage debt
  - Incentivising larger projects/costlier infrastructure
  - Stronger requirements to Micro manage project design and implementation
  - Reduces incentives to innovate at the local/state level

- Predetermined Project funding structure is a big negative form the project finance and risk structuring perspective
- Soother processing of Tranche based funding mechanism is required to reduce project implementation delays
- Smarter resolution of cost escalations and cost sharing required
- Unfinished / delayed projects lead to challenges at all levels
- Capacities at all levels and stakeholders need enhancement – local, state, national, private sector, consultants, NGOs

- Reform diagnosis totally absent at the city and state level
- Assumption that same 23 reforms are as impactful in all cities/states is flawed
- No requirement / chance / mechanism to renegotiate tripartite MoU due to changing understanding or context
- Result is that Reforms strengthened in stronger states
- Measures of outcomes/impacts mot clear
- Same treatment to better and weaker performers (capping)

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## Layered Scheme consultation and approval process at the Gol level



Source: modified from IHHS 2011

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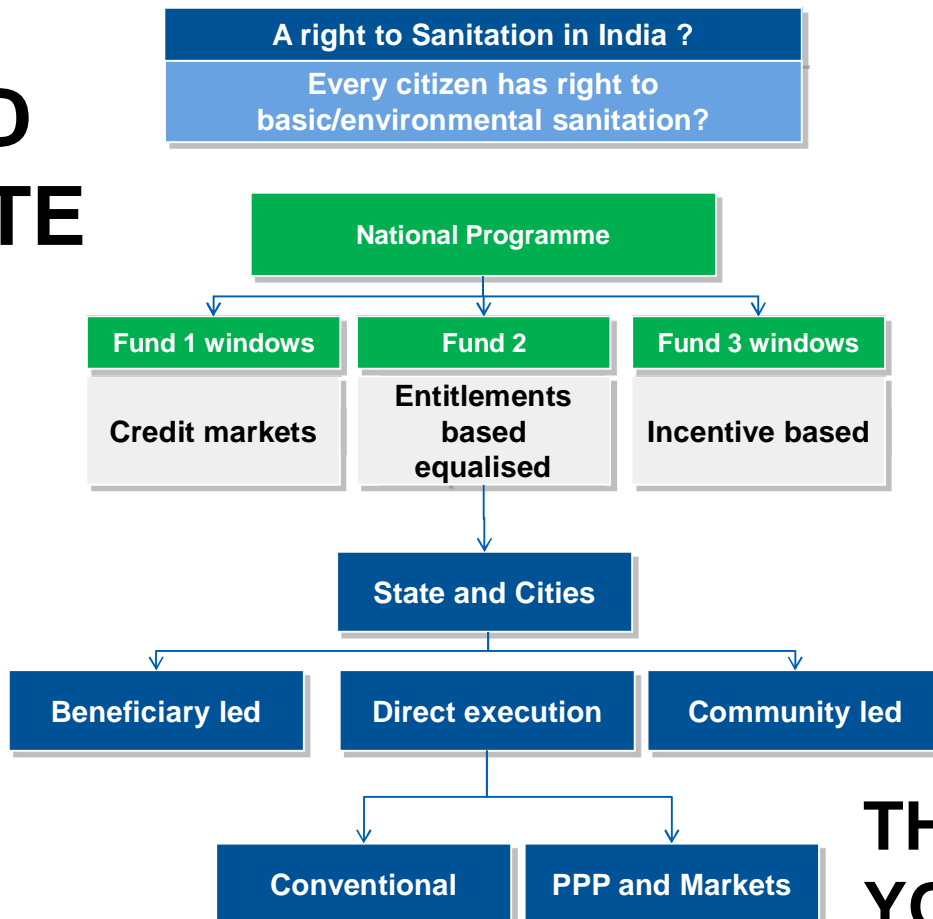
## Key Opportunities and challenges

- Urbanisation established as a key economic driver
- Scale of funding has demonstrated effectiveness – difficult to roll back
- Strong resonance on lessons on leveraging debt and PPPs
- Better understanding of how “one size fits all” reforms limit progress in many contexts
- States and ULBs geared in to implement projects
- Funding for MoUD for the 12<sup>th</sup> Plan period already in place
- Design of the JNNURM 2 ?

- What will trigger the move from asset creation to improving service delivery?
- How do you have greater community local involvement in large projects?
- How do you use central funding, but allow greater design responsibility to States and ULBs?
- Till the time there is another opportunity to relook at the divisions of funds and functions; expenditure and revenue assignment, between the three tiers we would need to work with basic principles of fiscal federalism to try and ensure that future schemes are designed so that they help clarify and simplify roles and responsibilities of different tiers of government as against making them more fuzzy.

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## END NOTE



**THANK  
YOU**

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