



21st African Water Association International Congress & Exhibition
and
The 7th International Faecal Sludge Management Conference

Innovative Finance Mechanisms for Citywide Sanitation

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Abidjan, Côte d'Ivoire
19-23 February 2023

US \$114 bn is estimated to achieve targets of Goal 6 of Sustainable Development Goals

The World Bank estimates - costs for constructing new infrastructure, not the costs of operating and maintaining infrastructure over time.



Global and National Agenda to achieve SDG 6

National Urban Sanitation Policy, 2008

Increasing priority and enabling environment by Government of India

- Providing 100% access to improved sanitation in urban India by 2025 to make cities open defecation free
- Extending coverage and ensuring proper functioning of sewerage systems
- Promoting safe disposal and treatment of sludge from on site installations



एक कदम स्वच्छता की ओर

Swachh Bharat Mission 1 & 2



Source: The Costs of Meeting the 2030 Sustainable Development Goal Targets on Drinking Water, Sanitation, and Hygiene, World Bank, 2016



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Urban WASH infrastructure has been generally financed through public funds however, there are budget constraints...

Own sources

Grants

Own sources of revenue of the local government or utility

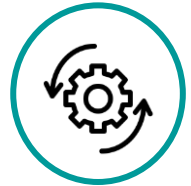
- ✓ Taxes
- ✓ Fees
- ✓ Rental Income etc.

Transfers from higher level of governments

- ✓ State and Central
- ✓ (Tied or Untied)
- ✓ Other Development Agencies and Partners

Need for innovative financing mechanisms in WASH

Efficiency of private sector



Used to leverage additional private sector or commercial funds. Help in bringing great efficiencies of private sector operations.

Performance & Effectiveness



Innovative models provide incentives for improved performance and effectiveness by using performance linked approaches, particularly for public-private partnership (PPP) models

Social & environmental impacts



Emerging interest globally on impact investing for funding activities. Help mobilize additional resources.

Landscape of innovative finance mechanisms

**Results Based Financing
and Annuity Based Models
for leveraging PPP**

Output based aid -performance
based incentives

Blended finance- Annuity based
models like PLAM and HAM

Development Impact Bonds

**Municipal Bonds, Pooled
Bonds & Municipal
Borrowing**

Municipal Bonds and Water
Sanitation Pooled Funds

Institutional and Market
Borrowing for Capital
Investments

Municipal borrowing from Banks
under Priority Sector Lending

**CSR and Philanthropic
Funding**

Corporate Social Responsibility
Funding

Crowd Funding

Philanthropy and Individual
Funding

Combination of traditional and innovative financing instruments are potentially available for investment in key sanitation outcomes

Sources of funding

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	✓	✓	✓						✓

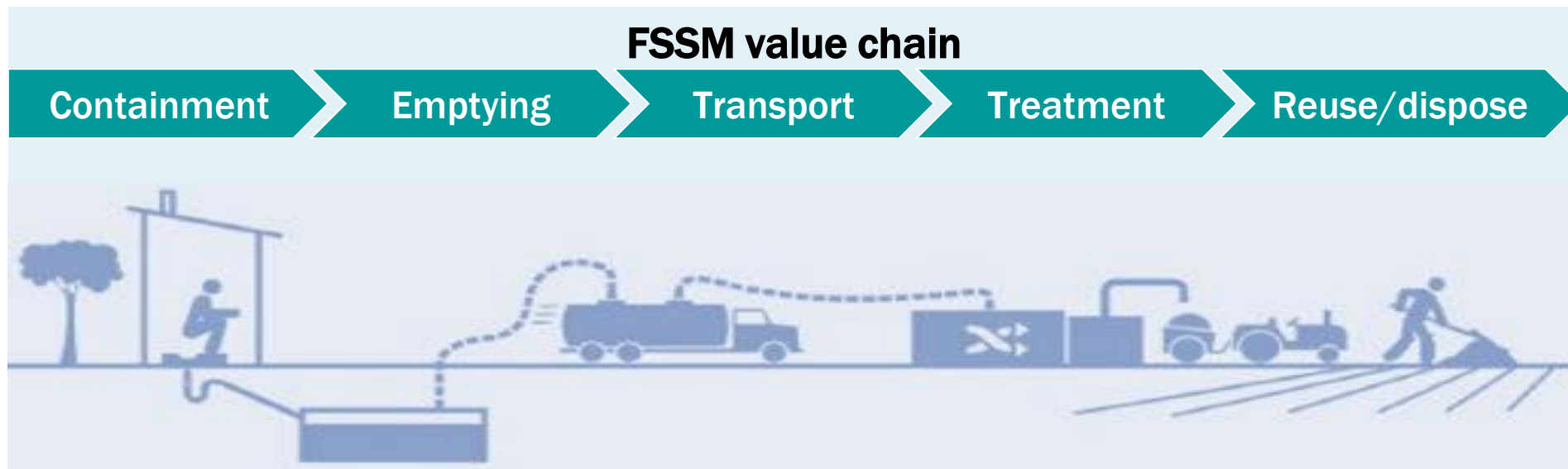
Mapping of funding instruments and innovative mechanisms to meet key sanitation outcomes.

Identifying business opportunities across the sanitation value chain

Source: A review of innovative financing options for urban sanitation, CWAS-CEPT and Dalberg analysis, 2014



Innovative financing mechanisms used across sanitation value chain in cities of Maharashtra




Crowdfunding

← Blended finance and Hybrid Annuity Models →

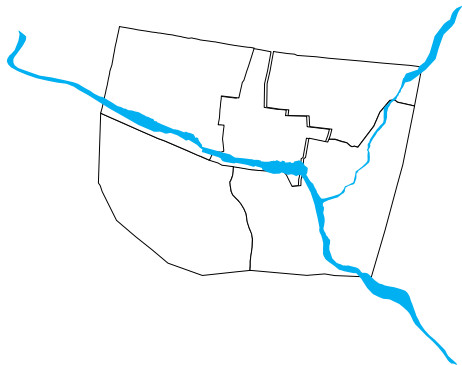
← Corporate Social Responsibility Funding →

Toilet incentive grant and sanitation loans for construction of household toilets

Citizens did not have toilets because of lack of space and fund availability.

 Announcement of 'Own Toilet/ Group Toilet Scheme' in Wai and Sinnar
Funding issues were addressed through subsidy and space issue were addressed through group toilets

WAI



Subsidy of : Rs 10,000 or 125 USD

SINNAR



Subsidy of : Rs 5000-10,000 or 75-125 USD

Beneficiary share ?

Central level scheme- Swachh Bharat

Mission

Subsidy : 50 USD +

State level scheme- Swachh

Maharashtra Abhiyan

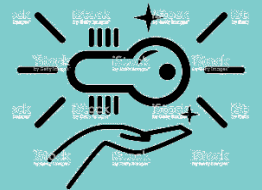
Subsidy : 100 USD +

City Share from own revenue

125 USD +

Total Subsidy for toilet:

=275 USD



Sanitation loans alongwith commercial banks and SHGs to address the gap

Guided awareness campaigns and stakeholder consultation to meet the gap



Stakeholder consultation and community participation and also have guided citizens to take **sanitation loans- Continuous process**

Awareness generation activities

- ✓ Day and night announcement in rickshaws
- ✓ Community level and Ward level meetings
- ✓ Movies and Jingles
- ✓ SHG meeting
- ✓ Toilet and lender fair



Distributing Handouts



Sanitation technology providers



Financial Lending Institutions



Capacity Building of Council's staff and toilet contractors

Sanitation credit from banks through SHGs and aggregator support

Although a partial incentive for toilet construction address affordability concerns to an extent, most applicants may require access to credit to build a toilet.



Willingness to take a loan to build a toilet – but, SHGs and MFIs were the only options available for households



Sanitation loans were mobilized for 300 women by linking SHGs to scheduled commercial banks in Jalna through MAVIM and its Community Management Resource Centre (CMRC).



Active participation from local aggregators and trainers such as MAVIM is a key to linking households, SHGs and commercial banks.



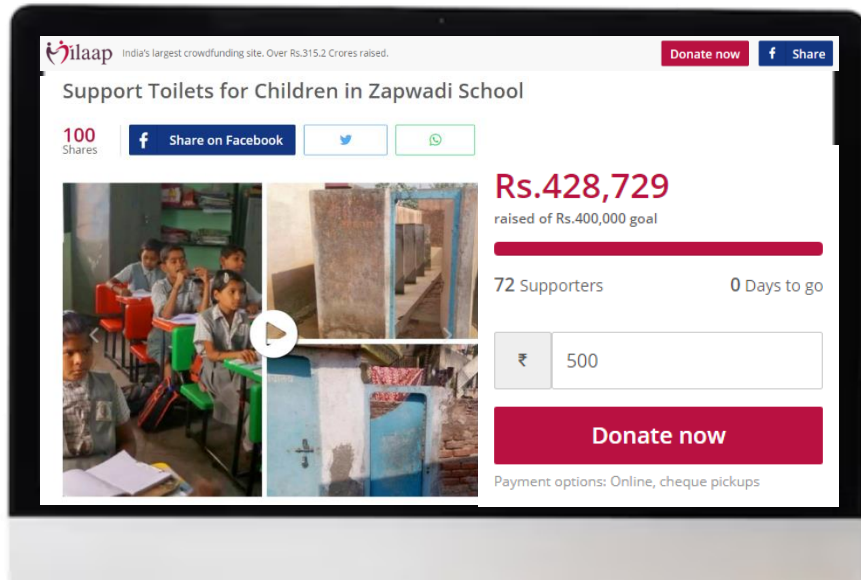
For availing financial services from banks, **groupwise applications** were submitted at subsidized interest rates: **7% interest for NULM + 3% interest subvention** will be availed to all women SHGs who repay their loan in time.



Sarita, who is the president of an Area Level Federation in Jalna has completed construction of a toilet in her one room house of 12 sq.mt. She borrowed Rs 15,000 as internal loan from SHG

Crowdfunding for School Sanitation in Sinnar city, Maharashtra

Crowdfunding platforms help connect a large number of individuals to contribute small amounts to support a cause or fund projects.



Campaign Organizer – Center for Water and Sanitation, CEPT University



Purpose – Construction, refurbishment and operation and maintenance of toilets.



Funds Raised – USD 6,700 in 2 months



Beneficiary – 500+ Students of Zila Parishad School, Sinnar, Maharashtra

Performance linked annuity model (PLAM) for engaging private operators in scheduled desludging services

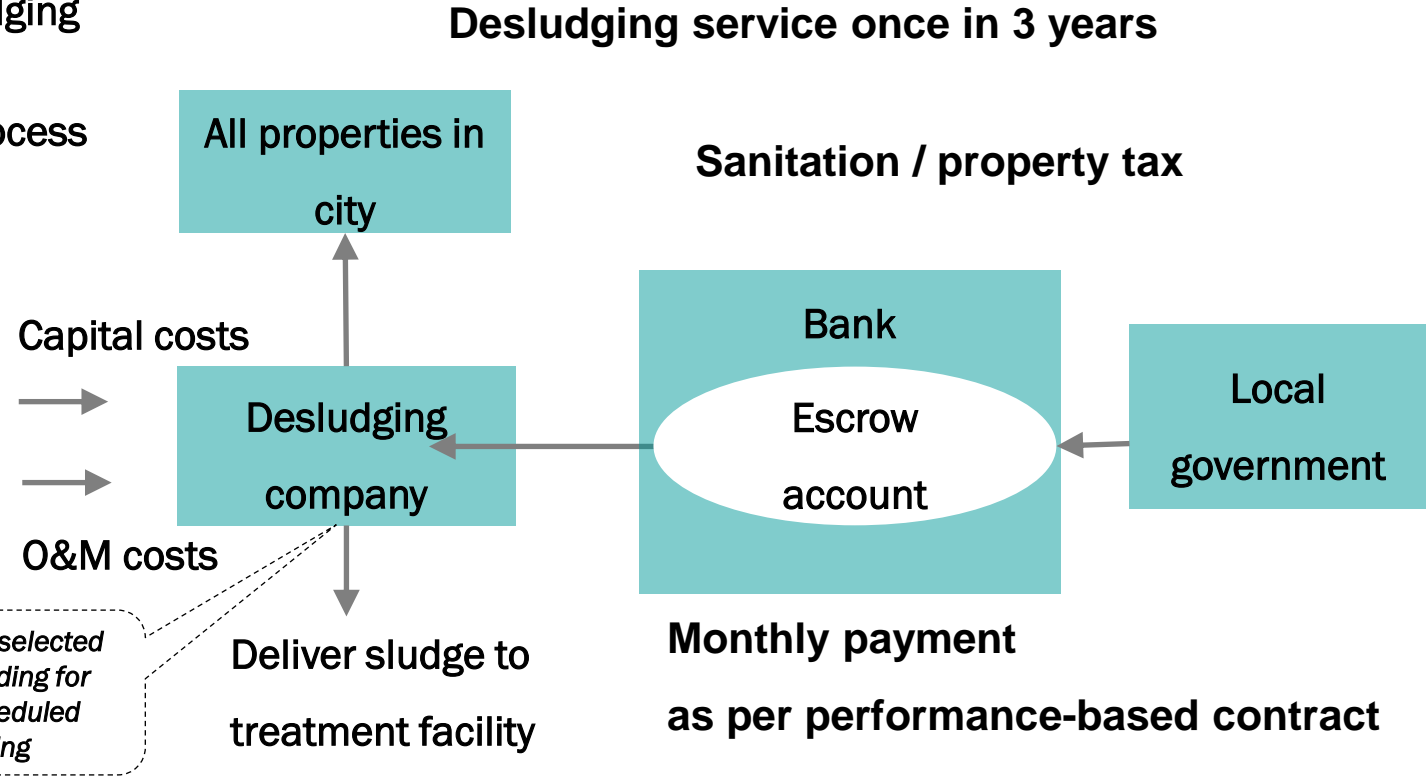
1 Lack of ULB capacity to implement scheduled desludging

2 Hired private operator through transparent bidding process wherein Private operator need to bring in trucks and manpower

3 Finance through Sanitation Tax
Households paying small sanitation tax to finance operations instead of high emptying charges

4 Risk coverage through Escrow Mechanism
Local government is supposed to keep 3 month payment in the account to mitigate private operator's payment risk.

Private player selected based on bidding for citywide scheduled desludging



- As no permit will be given to another private operator, there will be an assured market for the contracted player.
- It also ensures that the households will be willing to empty their septic tanks as no user charge is paid at the time of emptying.

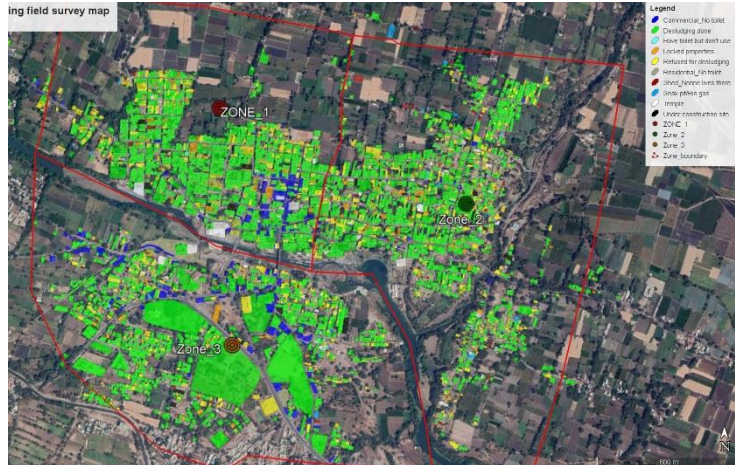


PLAM is operational and successful in Wai and Sinnar

1st cycle of scheduled desludging has been completed for the full city

6800+ properties desludged in Wai and 7500+ in Sinnar

19 million liter septage delivered & treated at FSTP



90-95% acceptance rate from HHs for scheduled service

HHs pay sanitation tax instead of high user charges

Elimination of manual scavenging

Mobilizing CSR funds for FSSM in Maharashtra

Mobilizing of CSR funds to support FSSM for different activities has helped in the quality and effectiveness of investments.

Potential estimated annual flows from CSR in India is USD 212 Crores

The Companies Act, 2013
2% of their three-year average annual profit towards corporate social responsibility (CSR)



- Mobilization of CSR funding from HSBC for Sinnar, Maharashtra. This supports activities related to ODF sustainability and for making the city ODF+.

- CSR grant also used for landscaping of 8000 sq m space around FSTP. This has led to reduction of 21,000 kg CO2 emissions.



Toilets constructed in Sinnar through HSBC support



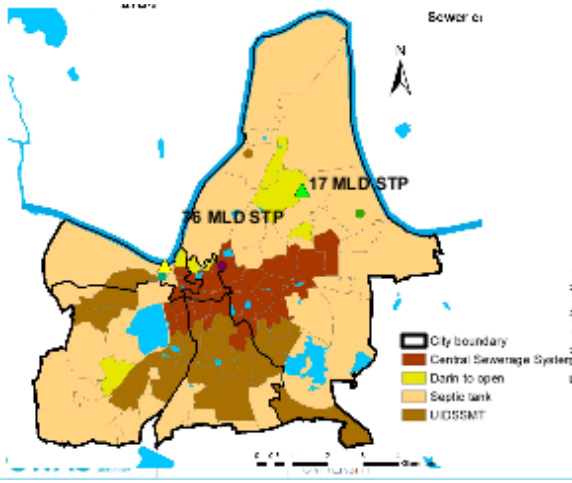
Before



After



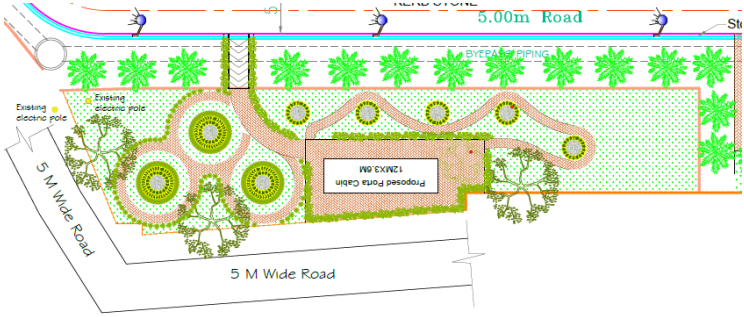
Enhancing FSSM infrastructure using CSR funding



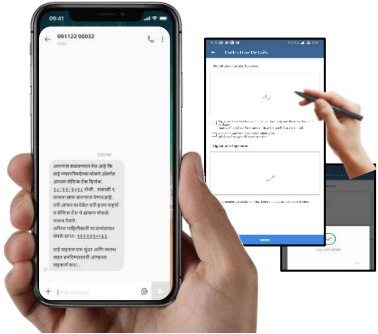
Sanitation assessment and FSSM Plan of the city- Kolhapur and Satara



Scheduled desludging of septic tanks- Kolhapur and Satara



Resource Centre and Landscape at STP in Kolhapur



Monitoring systems for desludging and treatment services

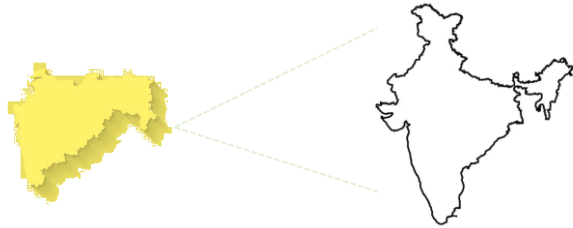


Capacity building of ULB staff and key stakeholders and Documentation



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Summary and Key Findings



Emerging experience of innovative financing in Wai and Sinnar has a great potential of **scaling up** to other cities in India and global emerging economies



Representative of **7400+** small and medium towns in India



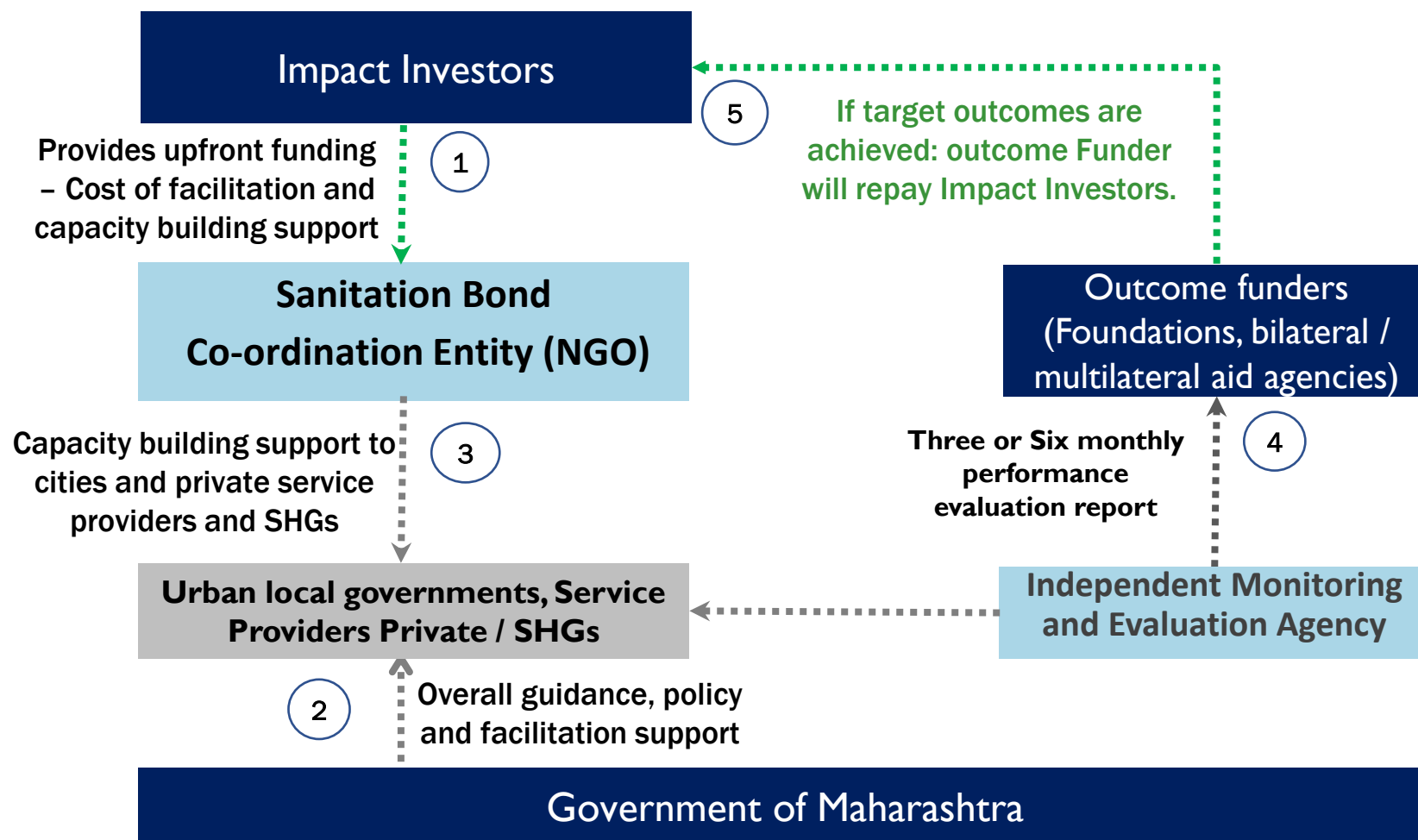
Experience in these cities can potentially impact over **150 million people** (~50% of urban population in India) who live in these towns



- Emphasis on innovative models is not only to leverage additional funds but to
- ✓ attract private investment by giving incentives using **performance-based approaches**
 - ✓ **Escrow mechanisms** reduce risk of the payments for private operators
 - ✓ improve **outcome efficiency** and **effectiveness of services**.

Exploring Development Impact Bonds for urban sanitation

- **CWAS** developed the DIB structure and financing model.
- Based on a review of various DIBs in India, potential structures were developed for an urban sanitation bond, focused on **integrated FSSM services for cities in Maharashtra**. It was developed for measurable outcomes for: **i) scheduled desludging, and ii) treatment**.
- A number of options for DIB structure were developed and assessed.

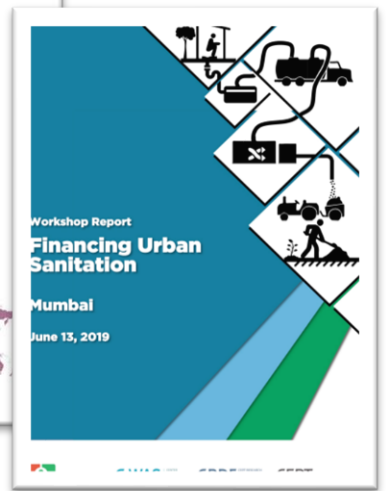
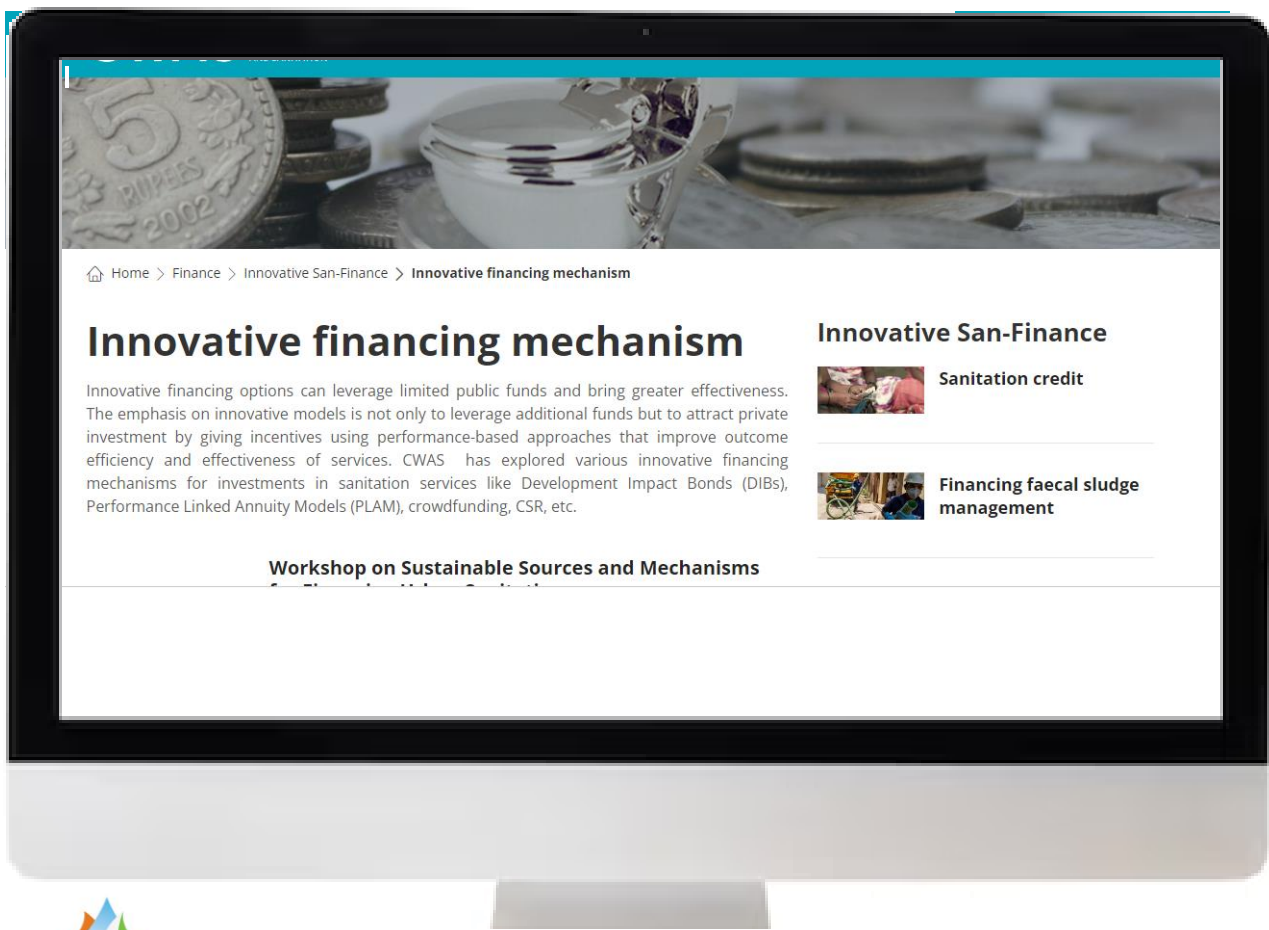


Exploring climate finance for WASH

- CSR grant to demonstrate projects that help reducing GHG emissions across WASH services.
- Exploring ideas for **green bonds** as an innovative finance mechanism to fund WASH projects.
- Academic linkages: **Dissertation on innovative finance mechanisms in climate sector for WASH**



Visit us at www.cwas.org.in to know more on Innovative financing...



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FOR WATER
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CRDF CEPT RESEARCH
AND DEVELOPMENT
FOUNDATION

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**Thank
you**

About us

The Center for Water and Sanitation (CWAS) is a part of CEPT Research and Development Foundation (CRDF) at CEPT University. CWAS undertakes action-research, implementation support, capacity building and advocacy in the field of urban water and sanitation. Acting as a thought catalyst and facilitator, CWAS works closely with all levels of governments - national, state and local to support them in delivering water and sanitation services in an efficient, effective and equitable manner.



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