

# Financing of FSM projects

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Under Sanitation Capacity Platform  
(SCBP)



# Sanitation Capacity Building Platform

## What is it?

Collaborative effort by NIUA for Mainstreaming Fecal Sludge Management at the state level and national sanitation agenda. Working with Expert Partner organisations for FSM solutions, upscaling of capacity building and national level advocacy with the NFSSM group.

We have sanitation challenges!

**ULB**

We can help you!



**WASHi**



Step-by-Step activities to be undertaken

# **PROJECT DEVELOPMENT PROCESS**

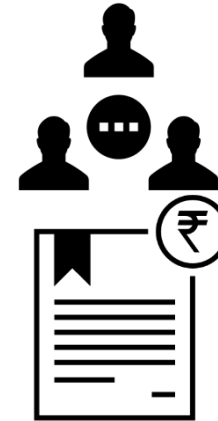
# Key activities of project development



- Technology options
- Decision on the most suitable technology
- Identification & demarcation of land



- Key risks in project
- Contractual framework
- Payment and monitoring mechanism



Needs assessment

Technical feasibility

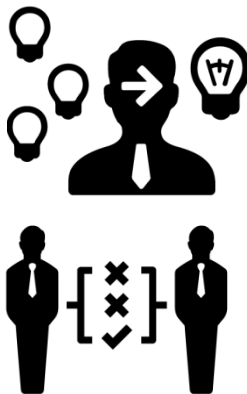
Financial feasibility

Project Structuring

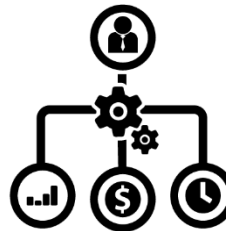
Procurement of services

Monitoring & Regulation

- Current no of septic tank users
- Plans of city to meet growing needs of sanitation
- Number of vacuum truck operators



- Availability of funds for project
- Revenue sources to make project feasible
- Viability gap funding



- Market/businesses for providing sanitation services
- Tendering for identifying private partner
- Standard procurement process



# Key Inputs for Feasibility Assessment

- **Demand Estimation** - population/ volume of septage to be extracted & treated, composition and growth estimates – accurate demand estimates – lead to reliable revenue flows from projections
- **Estimates of Base Construction Cost and Total Project Cost** – site specific issues, distance from treatment plant/ key inputs, uncertain ground conditions – more detailed the investigations and surveys, more accurate the costs
- **Operations and maintenance costs**
  - Key input for assessment of financial viability – impacts structuring decision
  - Often operations and maintenance costs are ignored, which in many projects of the government could be more than the capital investment
  - Sometimes operations and maintenance costs are under-estimated leading to failure of the project structure or over estimated leading to rejection of the project



# Financial feasibility analysis

## *Purpose*

- To quickly establish that the identified project has merit to be taken up by the ULB and then a high level check to verify suitability of the project being developed

### **Key questions:**

- What is the size of investment required for the project?
- What are the options for cost recovery from the project?
- Is the project profitable (sustainable) or do we require a viability gap funding?

# Financing options- National Government



Source	Component	Amount allocated	Issues/ Concerns
Atal Mission for Rejuvenation And Urban Transformation (AMRUT)	Fecal Sludge management	<ul style="list-style-type: none"> <li>Based on SLIPS and SAAPS prepared – O &amp; M not covered in project costs though computed for 5 years</li> <li>80% of annual budgetary allocation as project fund</li> <li>10% of annual budgetary allocation for reforms</li> </ul>	<ul style="list-style-type: none"> <li>Most of SLIPs/SAAPs focussed on centralized sewer systems with Large STPs</li> <li>Lack of understanding on the concepts/planning aspects</li> </ul>
Swaccha Bharat Mission	<ul style="list-style-type: none"> <li>Construction of toilets</li> <li>Construction of toilets with septic tanks/pits</li> </ul>	<ul style="list-style-type: none"> <li>Households toilets-Rs. 4,000 per household.</li> <li>No bar on additional resources to be provided by State Government/ULB</li> <li>40% Grant/VGF for community toilets and remaining through other resources</li> </ul>	<ul style="list-style-type: none"> <li>Beneficiary identification</li> <li>End usage of the toilets due to other issues like continuous water supply, behavioural issues etc.</li> <li>Land availability and viability in case of CTs &amp; PTs</li> </ul>
Backward Grant fund- CTs & PTs	All Components	Rs, 250 Crore for Capacity Building and Rs. 5000 Crore for development grant	<ul style="list-style-type: none"> <li>Only about 5.4% of the total development grant used in sanitation</li> <li>Delays in fund allocation from Centre to States</li> </ul>
National Safai Karamcharis Finance & Development Corporation (NSKFDC)	All Components	<ul style="list-style-type: none"> <li>Various soft loans for starting feasible businesses in sanitation – 1% - 6% with 10 yrs repayment</li> <li>Upto 90% of unit cost with max of 15 lakhs, balance 10% from Channelizing Agencies (CA) or promoter</li> </ul>	<ul style="list-style-type: none"> <li>Limited to only Safai Karmacharis/Manual Scavengers and their kin &amp; CA</li> </ul>



# Financing options- Local Government

Source	Component	Amount allocated	Issues/ Concerns
SFC Grants/any other State specific grants	All Components	As per discretion and fund availability of the ULB	Financial health of ULBs (limited sources of revenues in sanitation)
MP Local Area Development Scheme (MLALADS)	All Components- Asset creation only	<ul style="list-style-type: none"> <li>Rs, 5 Crore per MP per year</li> <li>Funds are non-lapsable</li> </ul>	<ul style="list-style-type: none"> <li>Focus on community or school toilets only</li> </ul>
MLA Local Area Development Scheme (MLALADS) - CTs & PTs	Construction of CTs & PTs - Asset creation only	<ul style="list-style-type: none"> <li>Rs. 4 Crore per MLA per year for asset creation with each project not exceeding Rs. 2 Crores</li> <li>No purchase of equipment/inventory allowed</li> </ul>	<ul style="list-style-type: none"> <li>Lack of intensions/importance to sanitation assets</li> <li>Unused funds can be carried over for upto 4 years</li> </ul>
22.5% scheme for development of SC/ST	Construction of CTs	<ul style="list-style-type: none"> <li>Applicable for slums having more than 90% population of SC/STs</li> </ul>	<ul style="list-style-type: none"> <li>Limited to only asset creation</li> </ul>
7.5% scheme for development of BPL	Construction of HHLs/CTs and cleaning of drains	<ul style="list-style-type: none"> <li>7.5% of any externally funded scheme to be used for upliftment of BPL families</li> </ul>	<ul style="list-style-type: none"> <li>Limited to asset creation and applicable on a small scale</li> </ul>



# Financing Options- Non-Government



Source	Component	Amount allocated	Issues/ Concerns
Multi-lateral funded programs/ projects- World Bank, ADB, DFID, JICA....etc.	Not covered specifically for FSM	Depending on the total project outlay worked out as a part of a larger strategy	<ul style="list-style-type: none"> <li>• Do not explicitly cover sanitation/septage management</li> <li>• More focussed on centralized sewer networks</li> </ul>
Philanthropists/ International Foundations/ Research bodies	All components	100% for creation of assets, with a possibility of inclusion of O & M costs	<ul style="list-style-type: none"> <li>• Usually small scale pilots</li> <li>• Possible only through continued local support</li> </ul>
CSR funding	All Components- Asset creation only	100% for creation of assets, with a possibility of inclusion of O & M costs	<ul style="list-style-type: none"> <li>• Usually small scale pilots</li> <li>• Possible only a continued push/interest from both the private corporates as well as local Governments/ULBs</li> </ul>




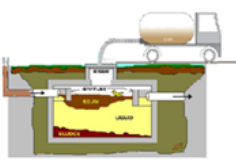
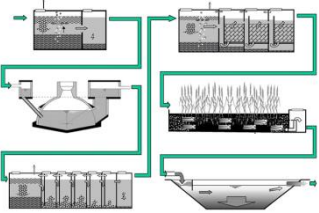
# Financing options- Others

- User charges
- Additional/special taxes on property/ sanitation cess
- Cross subsidization with other revenue generating activities
- Land bank monetization
- Development of market for reuse-
  - Cement manufacturing units
  - Soil conditioner

## **Out-of-the box ideas!!**

- Impact investments – By Venture funds/Phillanthropist
- Performance based grant funding- Partnership of multi-lat banks with donor agencies/foundations
- Micro-finance
- Crowd funding for defined social causes

# Identification of Risks

Component	ULB	Service Provider	User/Beneficiary
 <p>Toilets- CT &amp; PT</p>	O & M expenses	Under-use of asset	Faulty design
	Performance Monitoring	Financial sustainability	Safety concerns
	Dynamic market players	Viability gap funding	Pricing of services
 <p>Septage extraction &amp; Conveyance</p>	Regulation of services	Pricing dynamics	Timely availability
	Capital investments	Recurring O & M Costs	Pricing of services
		Health & Safety	
 <p>Treatment &amp; disposal</p>	Availability of funds	Continuous availability of design FS quantity	Technology risks
	Performance monitoring	Timely payments from client	Continuity of services
	Availability of land	O & M Costs	Pricing of services

# Key questions to be asked for Project Structuring



- What should be the time frame for which the project is handed over to the private operator?
- What is the price (user fee) level for making the project viable? Would users be willing to pay such rates?
- If the ULB would pay for services – how sustainable are the payment sources? Is there a need for a dedicated source of funds or for ring-fencing Govt. funds for this purpose?
- Are there any additional sources of income for the project? For instance by commercial utilization of additional unused land, advertisements etc. – if so, to what extent?

# Key questions to be asked for Project Structuring



- In case the project is not financially viable at an acceptable tariff rate, how much of government grant is required?
- Should the government grant be one-time or spread over the project period?
- While the pricing/ cost issues that are quantifiable get intensely discussed, other issues may get sidelined – for instance – engaging existing safai karmacharis, handling existing commitments, land acquisition, shifting of utilities – these can become impediments later



# Final Outputs

- Compile all the data pre-requisites necessary for bidding
  - This obviates need for multiple investigations by bidders
  - More thorough this effort, more competitive are bids likely to be
- Define performance parameters – input/ output based parameters for the assets to be created – construction and O&M
- Finalize user fee arrangements/ payment structures where ULB would make payments
- Bid documentation
  - Finalization of appropriate evaluation criteria – based on these inputs
  - Incorporate project specific issues

# Bid Documentation



- Expression of Interest / Request for Qualification Document
  - Instructions to Applicants
  - Qualification parameters and methodology for Evaluation
  - Formats for submission of application
- Request for Proposal Document
  - Instructions to Bidders
  - Formats for submission of proposals
  - Draft agreement
    - Legal provisions
    - Technical specifications
    - Project schedules
- Project Information Memorandum- In case of large/complicated projects



# Project Implementation

- Detailed Engineering, Designs and Drawings
- Project Planning - Procurement (fixed price or unit rate), activity scheduling
- Project Contracting - procurement/ activity plan
- Land and Site Delivery
- Financing Arrangements - Financial Close
- Construction - supervision and monitoring arrangements
- Testing and Commissioning

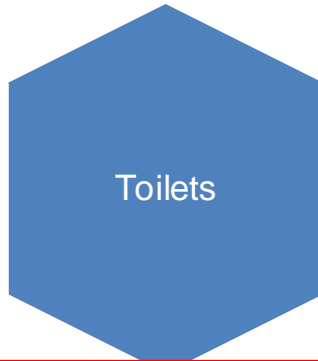




# Project Operations

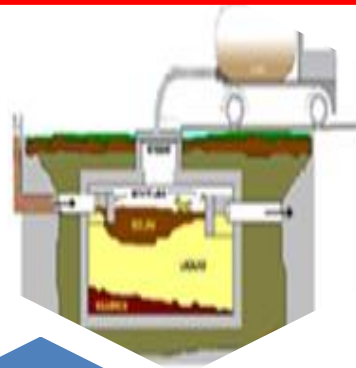
- Operations and Maintenance - Routine, Periodical, Major Maintenance
- Revenues - Billing and Collection
- Costs - Operating and Financial
- Monitoring - Internal Budgets/ External - lenders/ investors; regulator, users
- Quality of Service - Increasing need to deliver to standards; reliability - Customer Interface
- Pricing/Tariffs
- Hand back, Refurbish or Scrap

# Options for project implementation

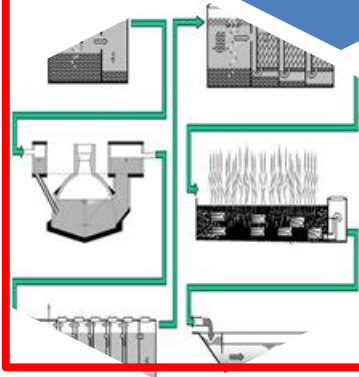


Contract for operating services  
 Build-Own-Transfer (PPP)  
 Engineering Procurement Construction model  
 Public-Private-Community partnership

Operating Contracts  
 Invest & Operate Contracts  
 Fixed quantity contracts



Integrated FSM Contract



Contract for operating services  
 Build-Own-Transfer (PPP)  
 Engineering Procurement Construction model  
 Public-Private-Community partnership



# Thank You!



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