

Study of success factors of PPP in wastewater management in India and Proposal of Aid Scheme

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Current situation of wastewater in India

Background

Scope

I. Obstacles

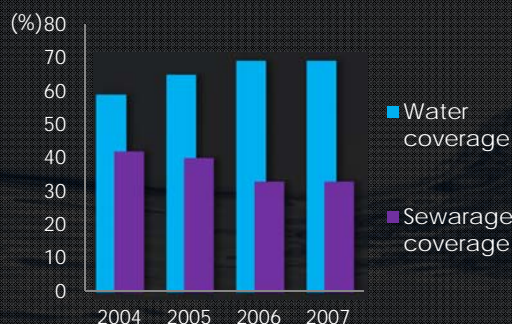
II. Success

III. Lessons

IV. Proposal

Conclusion

- India suffers from a scarcity of wastewater infrastructures.



70% :
People
without sewer

79% :
Wastewater
untreated

- Given a lack of finance, management skills and updated technology, the public sector can hardly cope with the issue.
- PPPs can contribute to providing the infrastructures instead.
- However, there are only few wastewater PPPs so far in India.

Research objectives

- i. To clarify the obstacles to wastewater PPPs in India;
- ii. To identify the success factors of past wastewater PPPs;
- iii. To gain lessons for donors;
- iv. To propose an aid scheme for JICA.

Methodologies

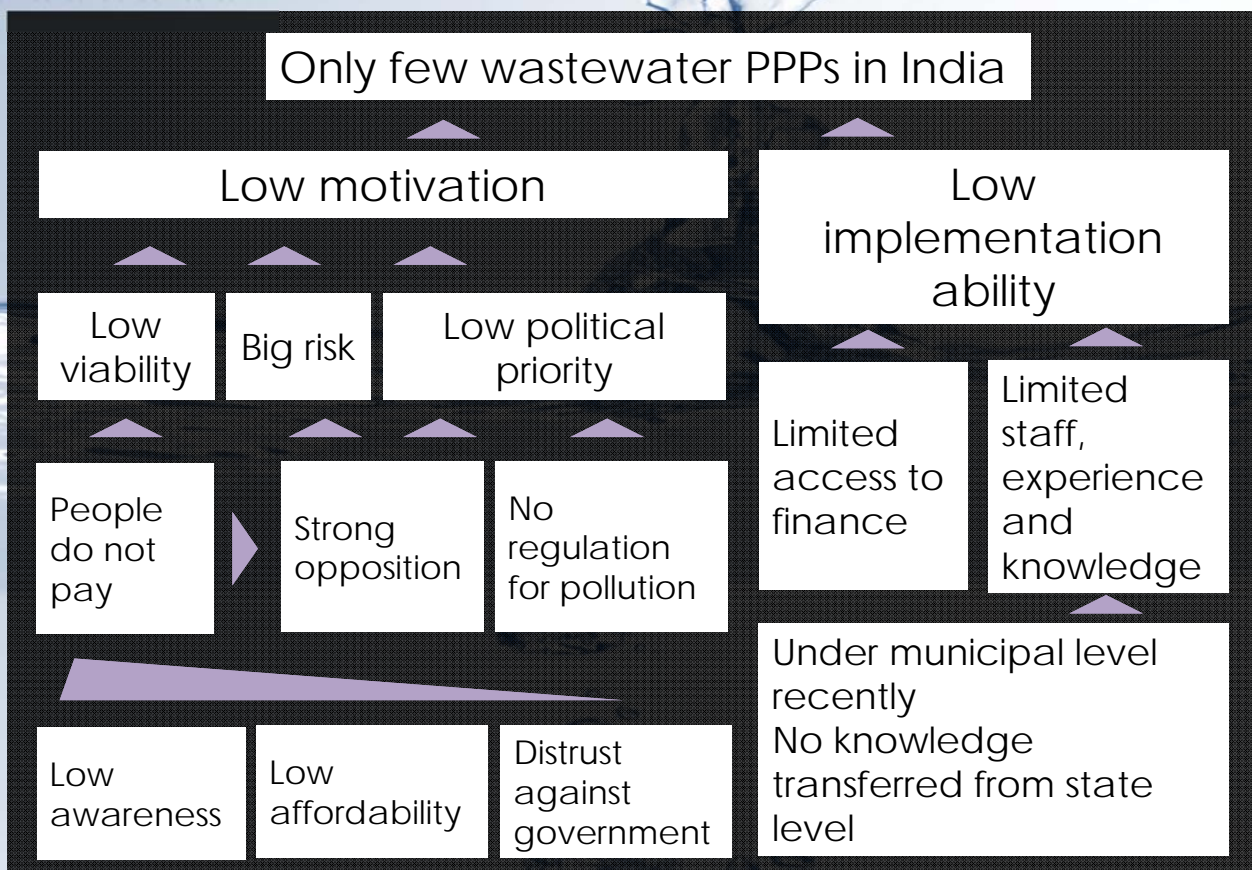
These objectives were addressed by;

- i. Literature review;
- ii. Discussion with the concerned people;
- iii. Field interviews in India.


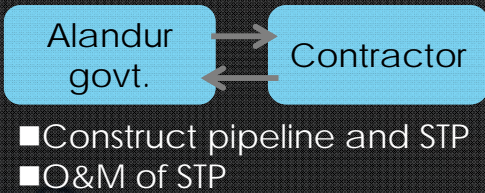


Field interviews in Alandur and Kolhapur

i. Obstacles



ii. Success factors – Case Alandur

Background Scope I. Obstacles II. Success III. Lessons IV. Proposal Conclusion	Background	Wastewater pipeline: 20% of population: Covered by open drains 98% of households: Septic tanks							
		Wastewater treatment plant: None							
	Project	Sewage overflowed	<ul style="list-style-type: none"> ❑ Stagnant water accumulated ❑ Mosquitoes and diseases 						
		<table border="1"> <thead> <tr> <th>Components</th> <th>Scheme</th> </tr> </thead> <tbody> <tr> <td>Wastewater pipeline</td> <td>Public funding</td> </tr> <tr> <td>Treatment Plant</td> <td>Lease contract 14years O&M period</td> </tr> </tbody> </table>	Components	Scheme	Wastewater pipeline	Public funding	Treatment Plant	Lease contract 14years O&M period	<ul style="list-style-type: none"> ■ Deliver wastewater ■ Pay for treatment
		Components	Scheme						
Wastewater pipeline	Public funding								
Treatment Plant	Lease contract 14years O&M period								
									

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ii. Success factors – Case Alandur

Background Scope I. Obstacles II. Success III. Lessons IV. Proposal Conclusion		Alandur Municipality	State Govt.	World Bank	Tamil Nadu Urban Development Fund	Citizens
	1988					
	Prior to 1996	Environmental and health concern and often raised as political issues				
	1996	Set as manifesto				Awareness
	1997		State Govt. urged to do PPP and charge citizens			"People desired the sewerage system in Chennai."
	1998 Aug				TNUISFL procured and managed a private engineering contractor to prepare the engineering reports including the project design, detailed technical design, locations and cost estimates.	
					Transparent financial analysis Price setting	Most of people desired a provision of sewerage system but not much sewerage charge.
	Oct-Dec 1999	Campaign to convince citizens				Representatives of Resident Welfare Associations had meetings and questioned about benefits, tariff pricing and reliability etc. They explained other details.
	By end of 2000 May	In order to facilitate the collection procedure, the municipality opened collection centers at different locations keeping to the convenience of residents.				Agree to pay

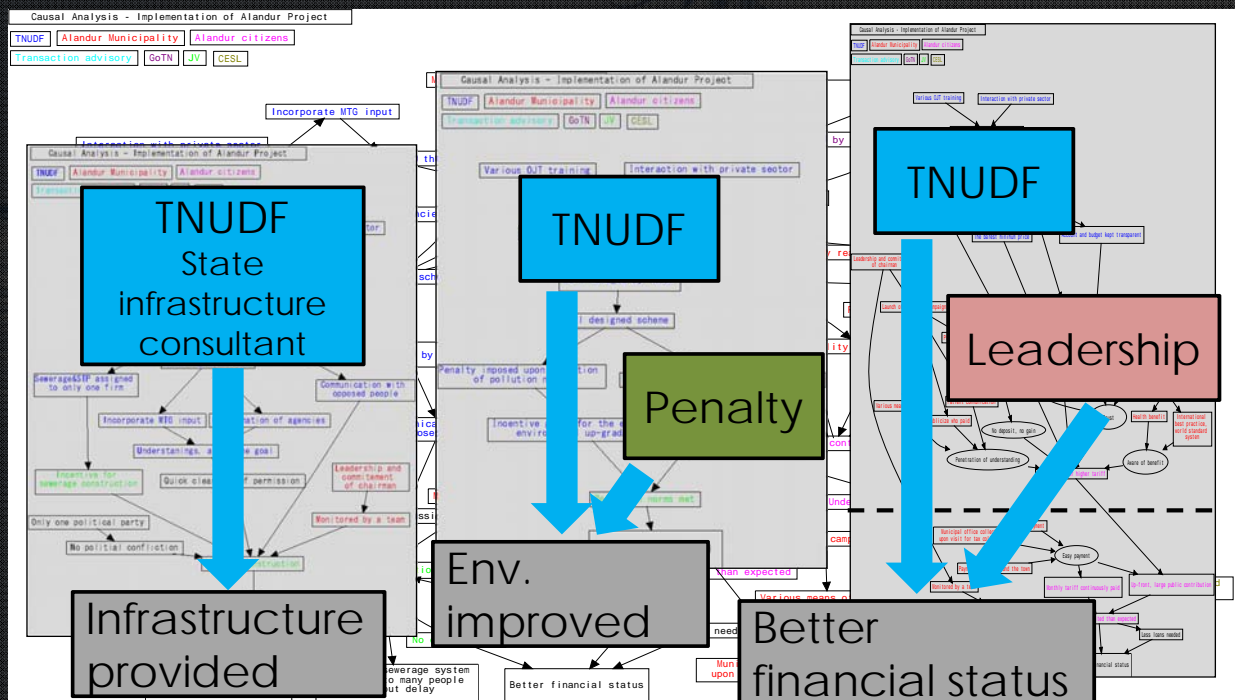
"We do whatever based on the citizens' demand."

"The state was behind repayment to WB. We had no choice but to charge people"

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ii. Success factors – Case Alandur

Cause-effect analysis was done for how the project was implemented.



This project has been replicated in 26 cities in the state.

ii. Success factors – Findings

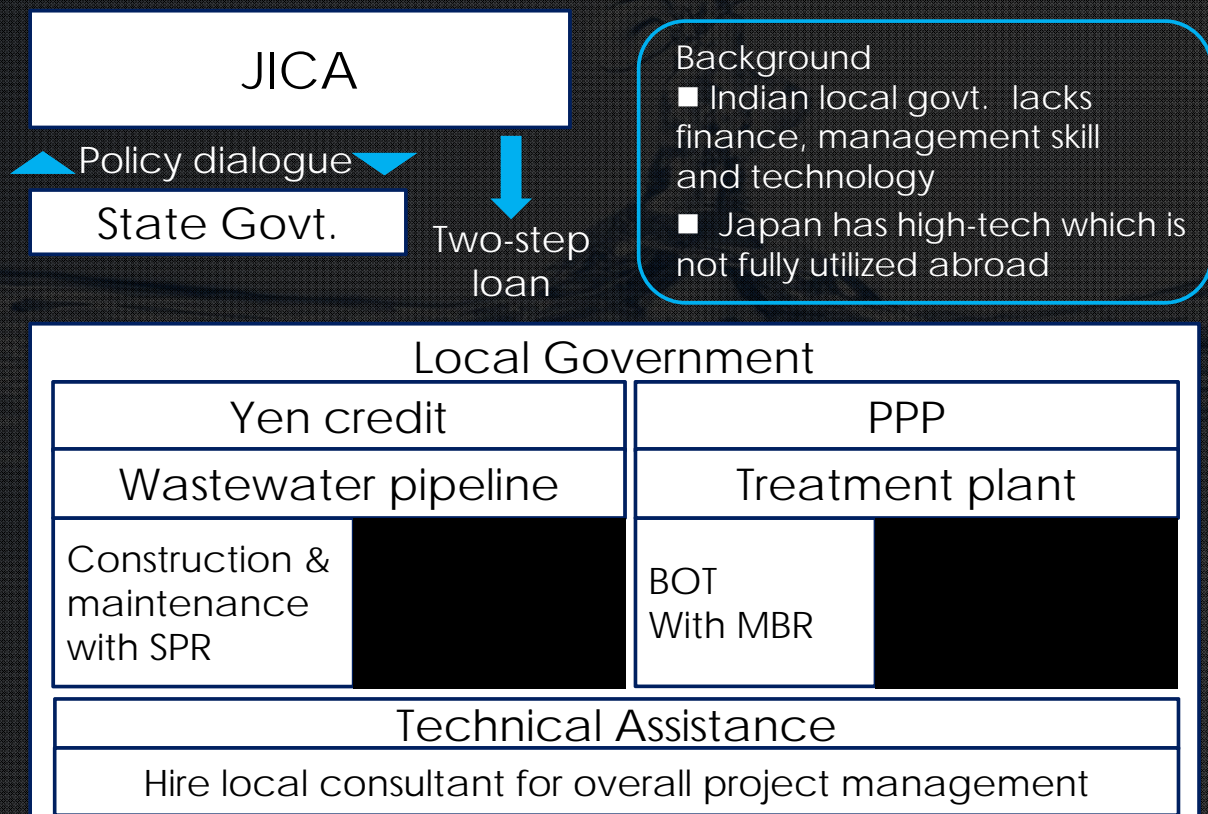
- Pilot projects have been replicated in other area.
- Success factors for decision making process are;
 - Internal awareness or external pressure;
 - Interference of state govt.;
 - Leadership of municipal head.
- Success factors for implementation are;
 - Comprehensive support for local govt.;
 - Penalty for environmental obligation;
 - Citizens can be convinced to pay sanitation charge based on their trust, affordability, awareness of benefit, "no deposit, no gain" and penetration of understandings.

iii. Lessons for donors

- Should run pilot projects for further replication.
- To help successful decision making;
 - Hold workshop to raise awareness.
 - Facilitate policy dialogue at state level to make it mandatory to improve environment.
- To help successful implementation;
 - Offer Technical Assistance for local government to receive comprehensive support.

Apply these three lessons to an aid scheme of JICA.

iv. Proposal of aid scheme of JICA



- i. The obstacles are clarified.
 - i. Low motivation for both public and private
 - ii. Low implementation ability of public
- ii. The success factors are identified.
 - i. Internal awareness or external pressure, leadership and interference of state government.
 - ii. Comprehensive support for local body throughout the project, penalty for violation of environmental commitment.
- iii. Lessons for donors are gained.
 - i. Pilot projects will be useful.
- iv. An aid scheme is proposed.
 - i. Scheme consists of yen credit and TA combined to PPP.
 - ii. Qualifies a bidder with technological capability.
 - iii. Local consultant gives comprehensive management.