



**Moving Towards
24x7 Water Supply**
An Endeavor of
Nagpur Municipal
Corporation through
Public Private Partnership



WATER SUPPLY AND USER CHARGES INNOVATIONS

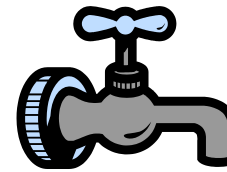
**COMMISSIONER
Nagpur Municipal Corporation**

26th Nov 2018

24x7 Water Supply Project of Nagpur

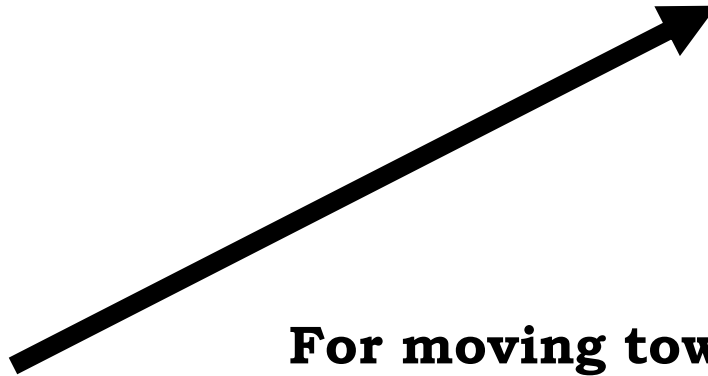
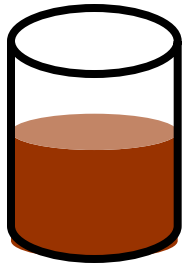
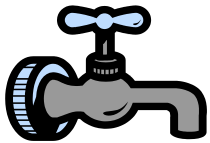


Year 2019



24X7

Year 2012



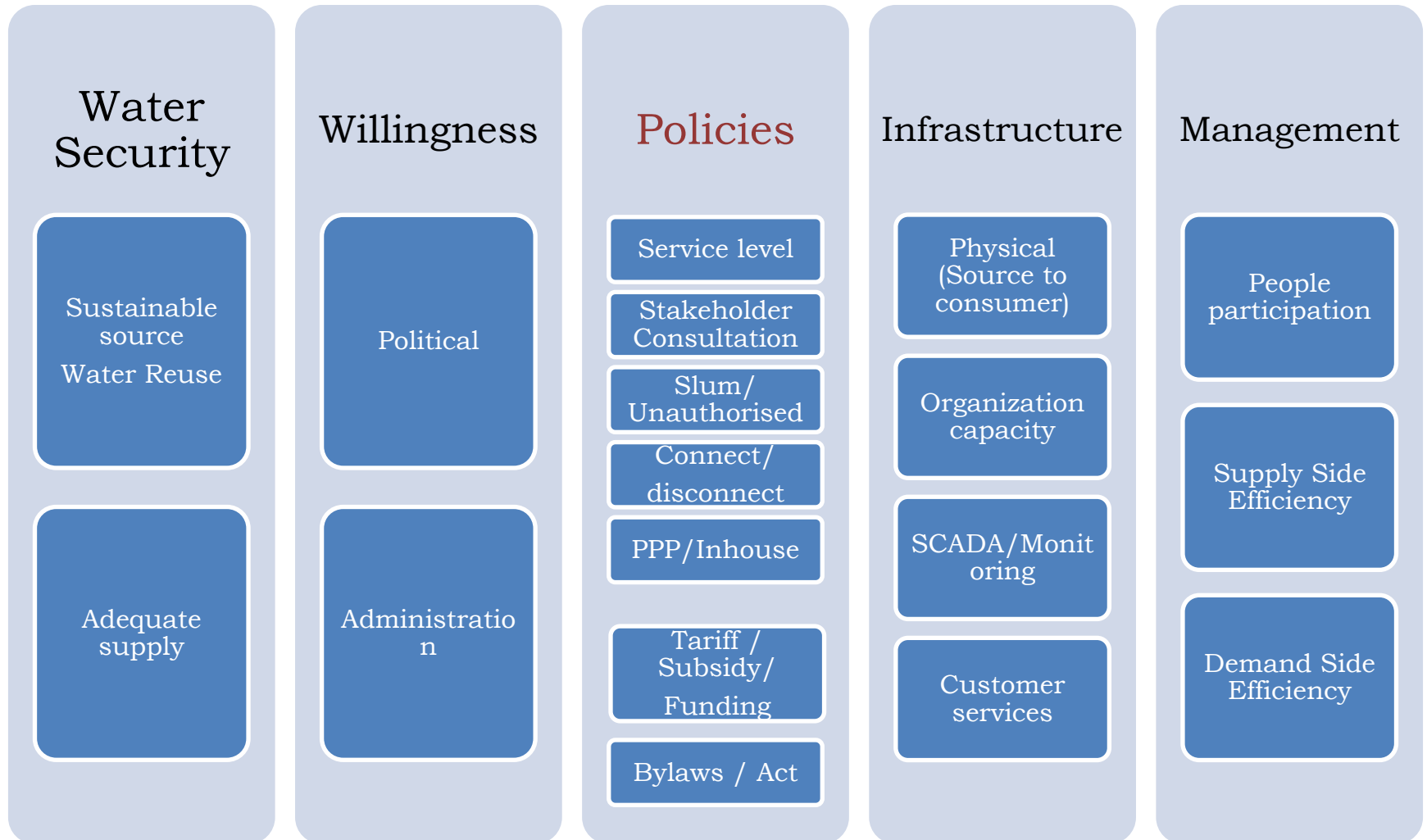
For moving towards 24x7 water supply, core issues to be tackled are;

- Water tariff
- Governance

Intermittent Supply



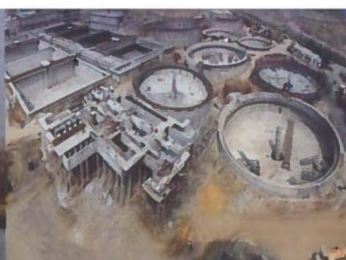
Continuous Water Supply- Holistic Approach



100 mld Bhandewadi STP under up-gradation to 200 mld for Recycle & Reuse

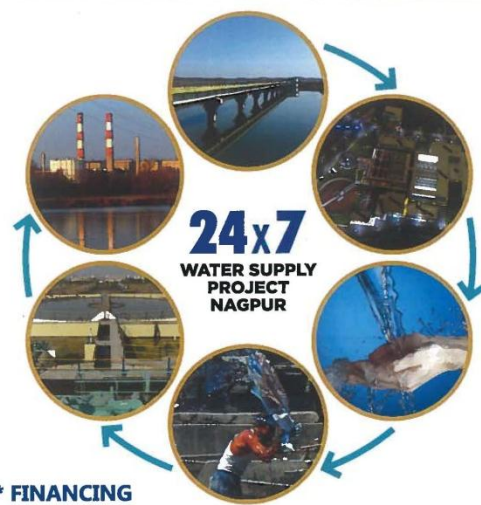


Power Plant, Koradi

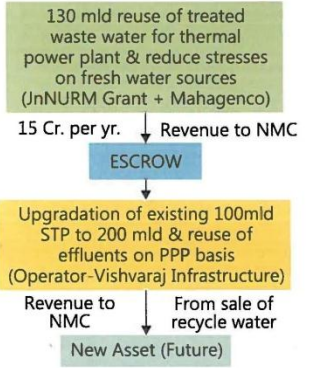


130 mld STP to reuse water for TPS Koradi

NMC WATER REUSE = MORE WATER FOR CITY, IRRIGATION & INDUSTRY



INNOVATIVE* FINANCING



*No financial burden on NMC

Consumer	Water Reuse Potential In mld
MAHAGENCO	130 (Agreement Executed)
Industrial / TPS	150 (PPP-Operator Appointed)
MIHAN	40
IRRIGATION	70
CITY BULK	25
TOTAL	415 Mld



Augmentation to Water Supply

Before Jnnurm - 470 mld

Augmentation under Jnnurm

1. Upgrade of old WTP/Pumps 60 mld
2. Augmentation of Kanhan 120 mld
3. Augmentation of Pench 115 mld

Total Investment Under Jnnurm – Appx 1200 crore

PPP – Investment – Rs 185 Crore
(Against ULB share)

Present Water Supply Capacity 765 mld

“All new WTPs are fully automatic and built under PPP mode and long term 10-15 years of performance based contract”

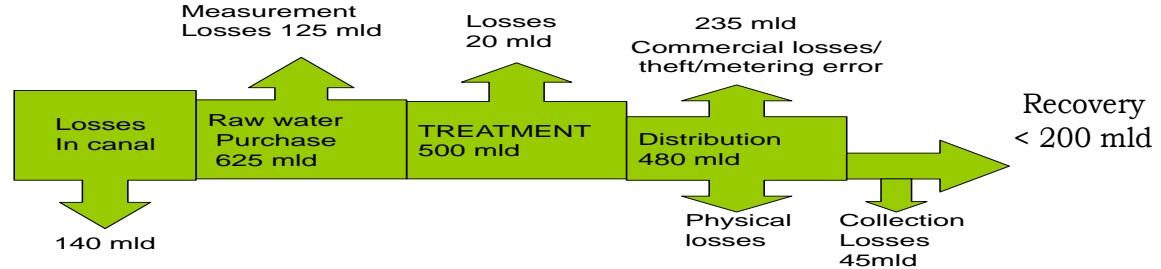




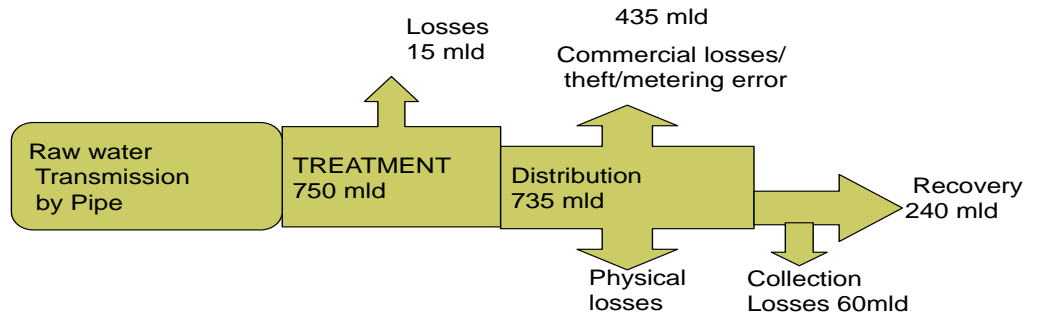
Bulk water Security – is not end of the problem ...

low efficiency resulted in to higher water losses, poor financial position , deteriorated assets, frequent contamination of water affected the public health specially urban poor and overall unsatisfied citizen services.

Augmentation to water supply is not a answer to above challenges



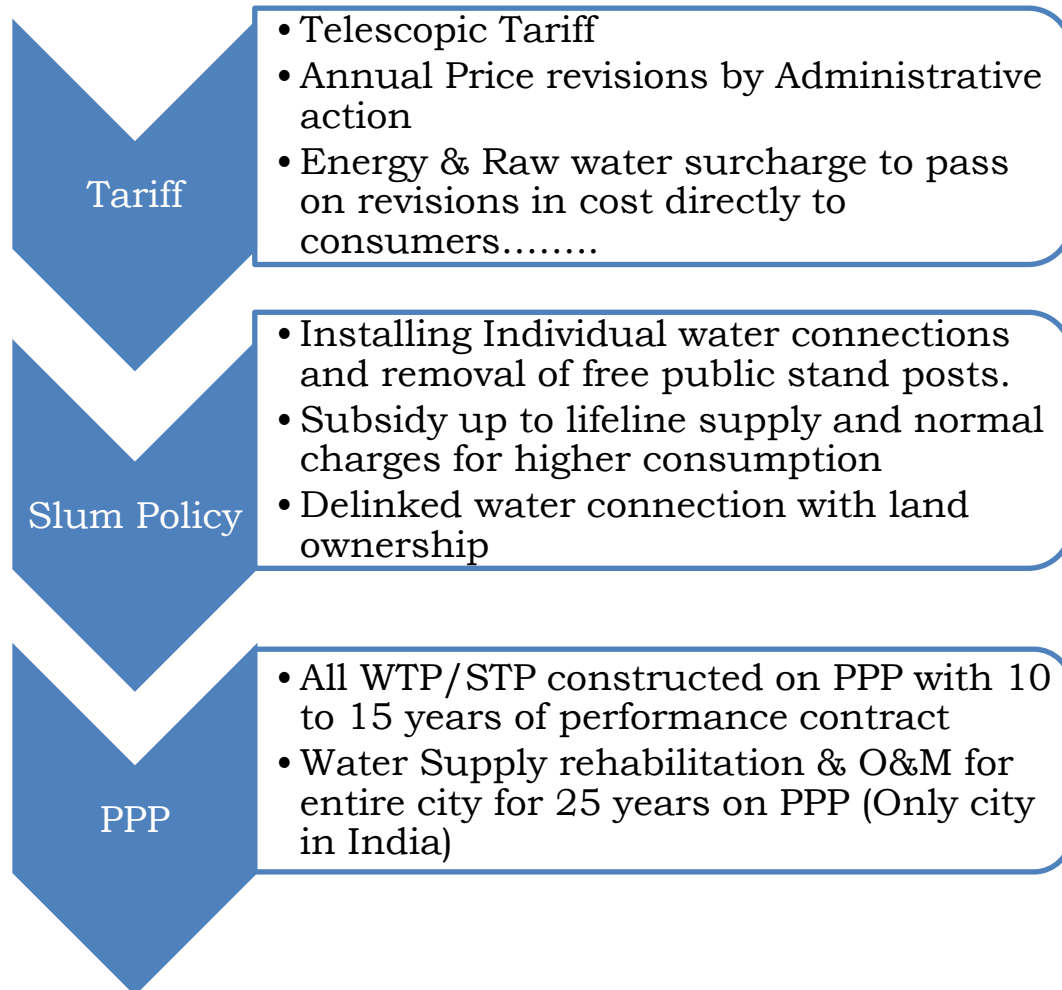
Expected Result After Investment of Jnnurm funds in Augumentation





Policy & Strategy adopted by NMC for Implementation of full city 24x7 Water Supply Project through PPP

Project at final leg towards implementation

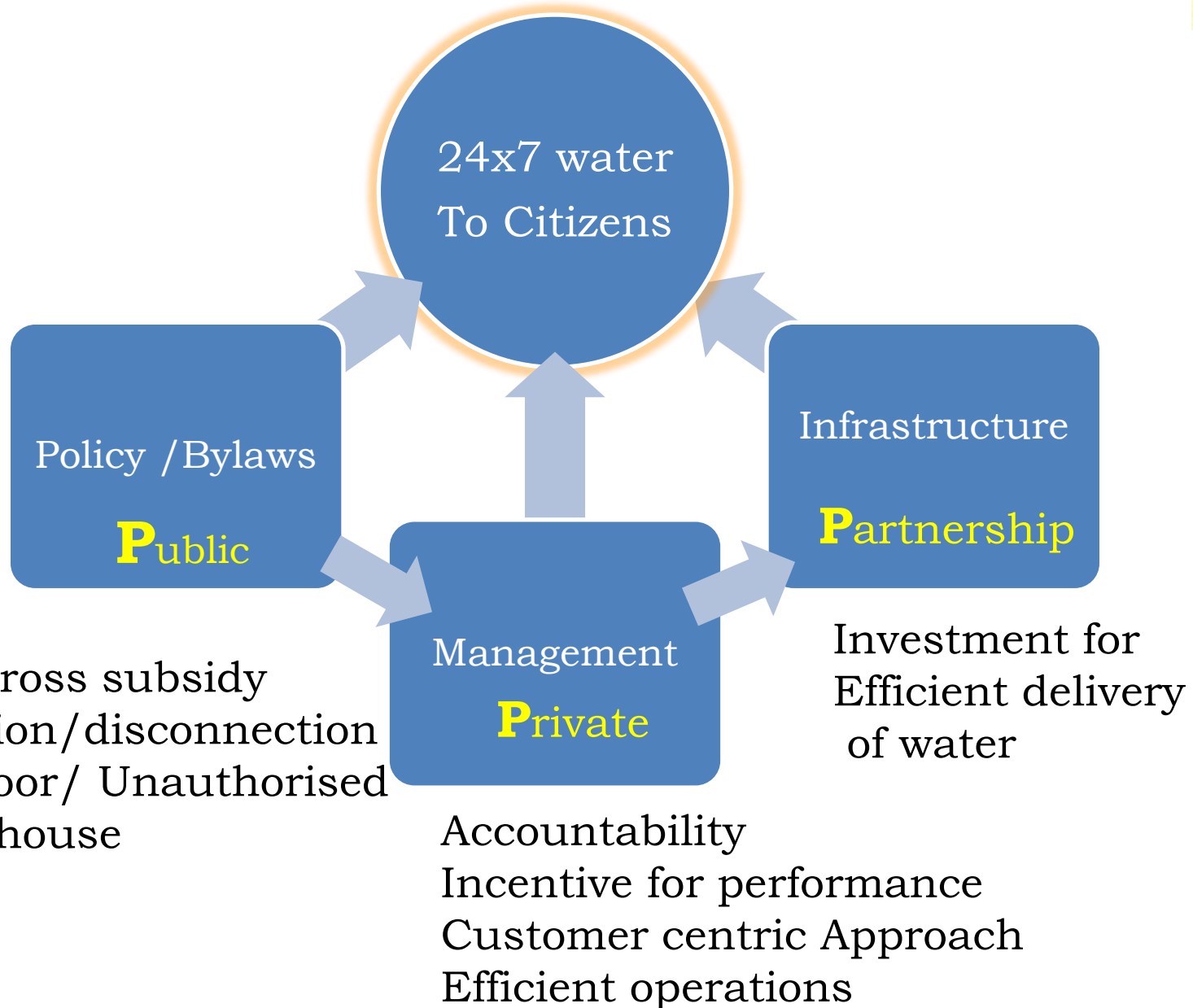




Nagpur 24x7 Water Supply Project Features

- Public Private Partnership
- Partnership
 - Asset Ownership : NMC
 - Operation: Private
 - Investment: Both
- NMC to decide Tariff
- NMC to decide Development Plan for City
- Private Partner to Operate the system.
- Private Operator to earn profit through efficiency in Implementation and operations

Nagpur Holistic Approach



Salient features of NMC's user charges Reform

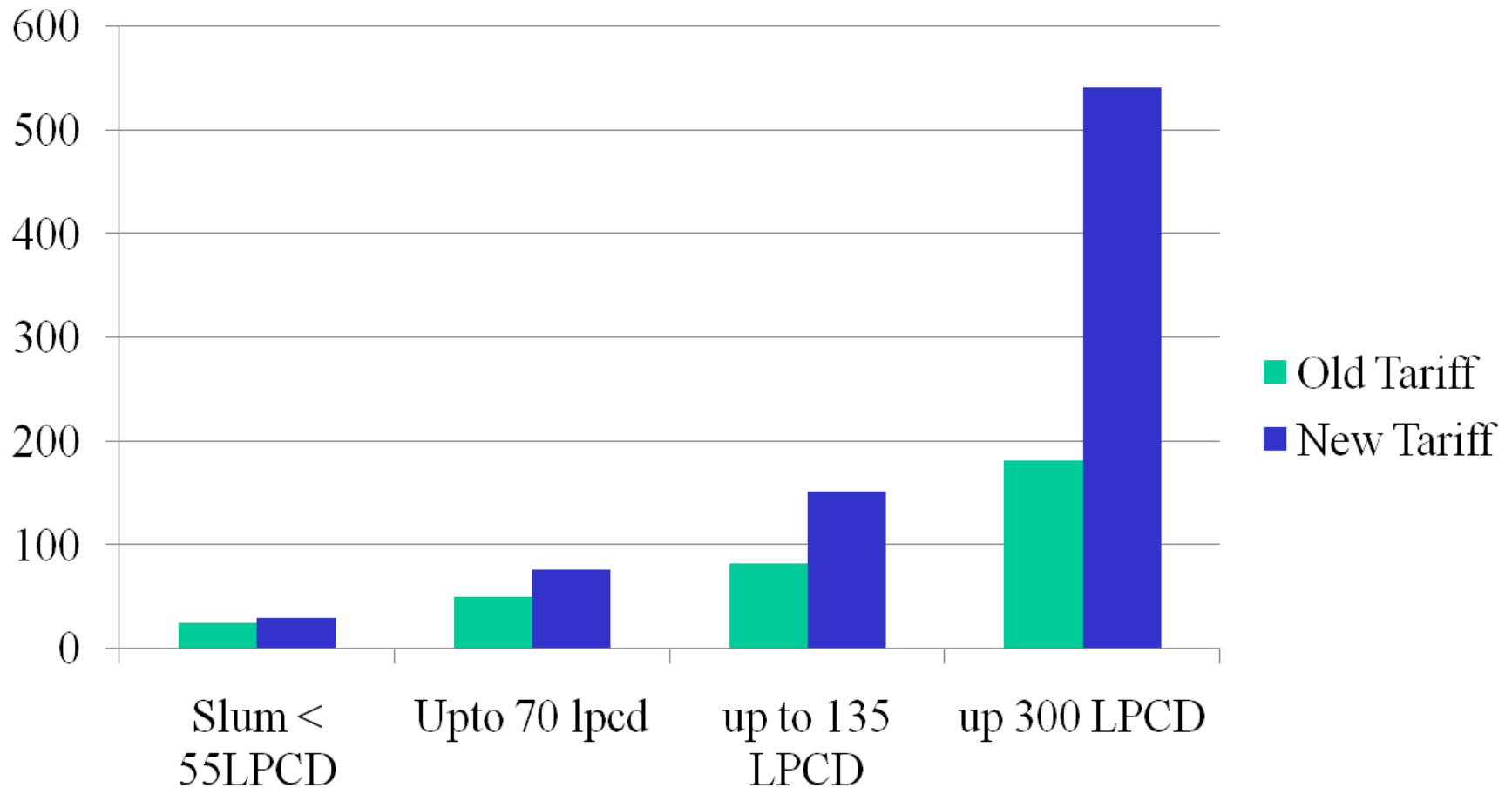


➤ With the priority of fulfilling mandatory reform under JnNURM regarding levy of reasonable user charges with the objective of full cost recovery of O&M and recurring costs, NMC undertaken the exercise of setting rational user charges in the year 2008. The salient features of water tariff revision implemented by NMC are as under;

- Telescopic tariff to promote water conservation.
- Affordable supply for life line volume, subsidized supply for consumption within the norms and premium rates for consumptions higher than the norm.
- Tariffs revision to meet Operating expenses and repay the loan for JnNURM Projects.
- No tariff revision effected since year 2000, and also need for its rationalisation.
- Tariff flexibility to cope up with ever increasing energy & raw water tariffs (which constitute almost 40% of the total cost) owing to inbuilt provision to pass on the increase in input cost of raw water and energy directly to the consumers as surcharge.
- Autonomy for tariff fixation and minimum 5% increase in tariff every year.
- Addressed all tariff related issues of consumers by NMC before the entry of private operator under full city 24x7 W.S. Project through PPP.



Monthly Bill of Domestic consumer having Family of 5 members Telescopic Tariff for Demand Management



Institutional Reform



NESL Water Company

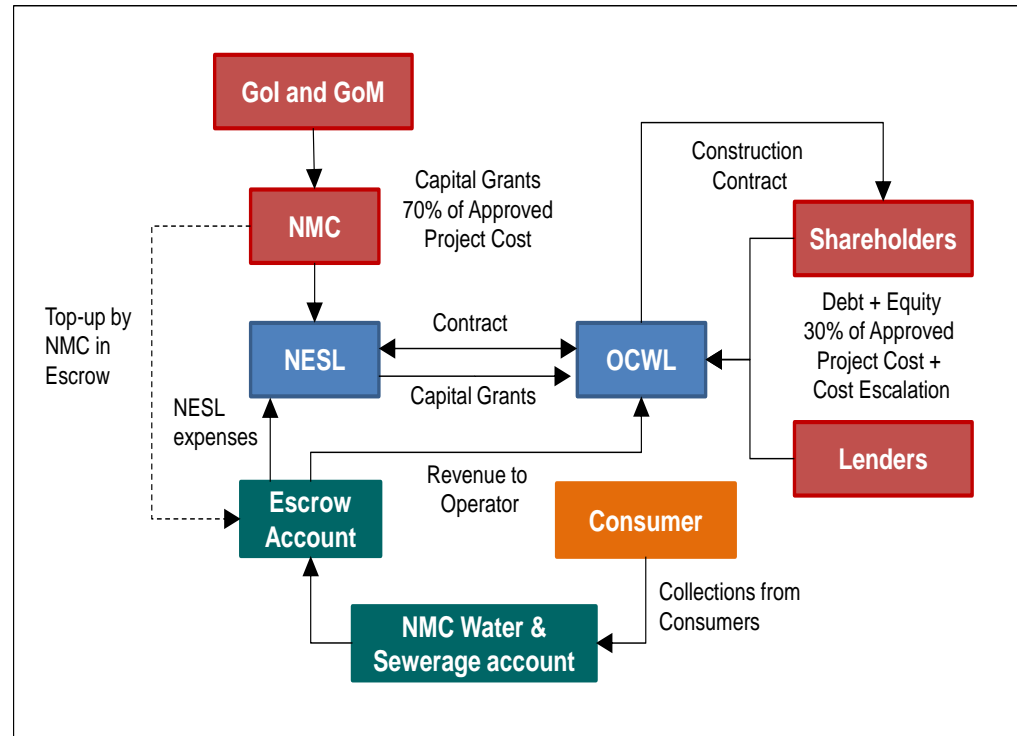
- Formation of 100% owned water company of Nagpur Municipal Corporation (NMC) called Nagpur Environmental Services Ltd (NESL)
- Registered under Companies Act 1956 on 28th Oct 2009
- Having mandate of General Body (GB) of NMC and Government of Maharashtra (GOM)
- Transfer of assets of NMC to NESL for operation, maintenance and management only.
- Apart from water supply, NESL can take up the work of planning and implementation of projects of Nagpur City under Environmental Sector.



Features of the PPP Institutional Arrangement

• Project scope

- 25-year Performance Management Contract (extendable for another 25 years)
- First 5-year OCWPL responsible for O&M of existing network and rehabilitation of the network
- O&M of the water supply system for next 20 years
- Revenue and collection risk loaded on Operator
- Operator's performance to be monitored against performance parameters
- Remuneration based on metered volume that is billed and collected.





Full City 24x7 work in progress

Sr.no	Component	Qty to be executed as per revised BOQ	Qty executed	Balance	% work completed	% to be completed
1	Replacement of Pipe line (inside slum and Outside Slum)	676.106 km	610.405 km	65.70km	90.28%	9.75%
2	House service connection (inside slum and Outside Slum)	320211 nos	176299 nos	143912 nos	55.06%	44.96%

Conversion of command area into 24X7 (Achievement upto October, 2018)

- Total C.A – 68 nos.
- Converted C.A – 16 nos.
- No. Of consumer benefitted by 24x7 water supply – 81,826
- Population covered – 5,31,706

Physical progress – 77.61%

Financial Progress – 79.26%



Challenges ahead

- Continued stakeholder engagement and communication to build trust and credibility.
- Sequencing and moving forward on tariff reforms.
- Replacement of consumer connections and addressing last-mile and internal plumbing issues will need to be tackled head-on as these aspects are critical to consistently deliver 24x7 supply.
- Cost escalation in costs of the Initial Improvement Program.



Lessons learnt

- Holistic planning and integrated set of actions for Implementation of city-scale PPPs will need.
- Institutional clarity on the public side helps; needs to be backed with building adequate contract monitoring and administration capacity.
- Sustained Political and administrative commitment is critical; so is wider stakeholder engagement and achieving consumer support.
- Sequencing tariff reform.

Nagpur Learning

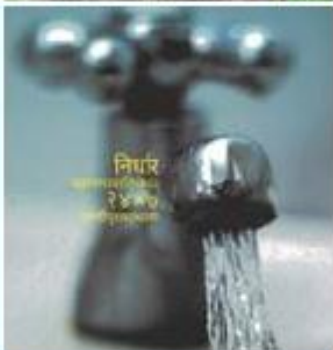
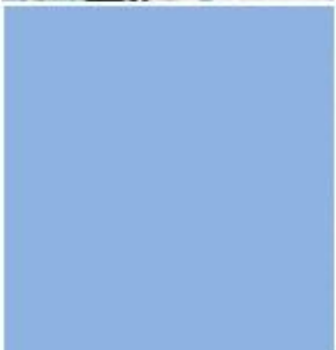
Communication/Involvement with Citizens is most crucial

It should be **People**-Public-Private- Partnership

It proves that Indian Urban Intermittent water supply can be upgraded to 24x7 without 100% replacement of Network

Key prerequisites for moving towards 24x7 WS Initiative

- Water Audit and Rapid Assessment of existing WS system
- Political and Administrative will
- Availability of Raw Water and Infrastructure
- Availability of Govt Grants (Reform based)
- Quality metering / telescopic tariff / billing & customer management
- Ring fencing of water supply operations & accounts
- Financial independence through tariff revision for O&M cost recovery
- Clearly written RFP document with objective of minimising areas of potential conflict.
- Information, Education Communication (IEC) practices
- Conversion of manageable area into 24x7 WS in a phased manner
- Conformity of PPP contract with legal frame work applicable to specific ULB.



**THANK
YOU**