24 X 7 Water Supply Scheme The Ilkal Story

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What is the story?

- Ilkal- First town in India to provide 24x7 water supply to entire population
- Acute water scarcity (1-2 hours once in 2-3 days) prior to project intervention
- Demonstrated 24x7 water supply is possible in South Asia, if technical and social issues are addressed properly
- Increased aspiration of policy makers and beneficiaries

SMALL IS BEAUTIFUL

- Population of around 85,000
- Area 12.98 Sq. km
- Heterogeneous socio-economic population
- Fluoride contamination in groundwater
- Acute water scarcity resulted
 - Significant drop in school attendance
 - Frequent outbreak of waterborne diseases
 - Reduction in productivity of Ilkal's famous weavers' community

Why Ilkal?

- Schools and hospitals had to depend on private sources for water

The Project

ADB assisted North Karnataka Urban Sector Investment Program (MFF amount \$270 million):

- To provide better urban facilities to North Karnataka region that is perpetually backward
- Coverage : 25 towns
- Project Beneficiaries : 4 million
- > Main component: Water supply and Sewerage
- Period : 2007-2019
- 24x7 schemes supported under the MFF
 - > 13 towns with 100% coverage
 - > Beneficiaries: 1.5 million people
 - > All schemes are likely to be commissioned by 2019



What has changed?

Parameter	Before	After
Hours of supply	2-4 hours in alternate days	24x7 supply
Average pressure in distribution system (m)	0-1.5 M	14 m average pressure
Population served	No household connections; only through 230 PSPs	100% population with individual HSCs
Physical losses	50%	8%
Metering	No individual connections	100% metered connections
Customer complaints response time	NA	Complaints addressed within 24 hours
Collection efficiency	Not available	More than 90%
Recovery of O&M cost of water supply system	NA	89% cost at current collection levels

What has changed?



What are the key drivers?

- Extensive community involvement to garner people's trust and infuse a sense of confidence and ownership
- Prior commitment of local policy makers on key reform measures, including tariff
- Simple PPP contracting modality considering ULB capacity (**Performance-Based Construct and Operate Contract**)
- Composite contract structure
 - Item rate: Distribution network
 - Design and build: Bulk water
 - Performance based: Operation & maintenance
- Selection of technology and pipe materials
- Well defined and realistic key performance indicators
- Establishment of escrow account for O&M stage
- Leadership of State Agencies and Team effort

Lessons Learnt

- Small and simple is beautiful
- Technical and social components are equally important for success of such schemes
- Subproject scope should be end to end and outcome based
- O&M period for the operator should be minimum 8 years
- Contract modality should be based on the contract administering capacity of the line agency
- Use of Smart water technology could further improve efficiency and reduce O&M cost
- Establishment of Regulatory model

Thank you

- 112 km distribution network
- Construction and rehabilitation of clear water reservoirs
- Installation of 13 bulk flow meters
- Installation of 10 pressure control valves with monitoring units

Key Outputs

- 100% household metering
- Electro-mechanical works
- Control center
- Establishment of customer care center
- Establishment of grievance redressal system
- Billing and collection system

Execution Period

- Survey and Design Period (6 Months)- 2012
- Procurement Period (6 months)- 2012
- Implementation Period- (18 Months)- 2013-14
- Preparatory Period (3 Months)- 2015
- Operation and Maintenance Period(48 moths)- 2015-19



- Distribution system : \$5 million
- Bulk Water : \$3 million
- Annual O&M Cost: \$0.35 million