

Urban Water Reforms – Maharashtra - MSNA

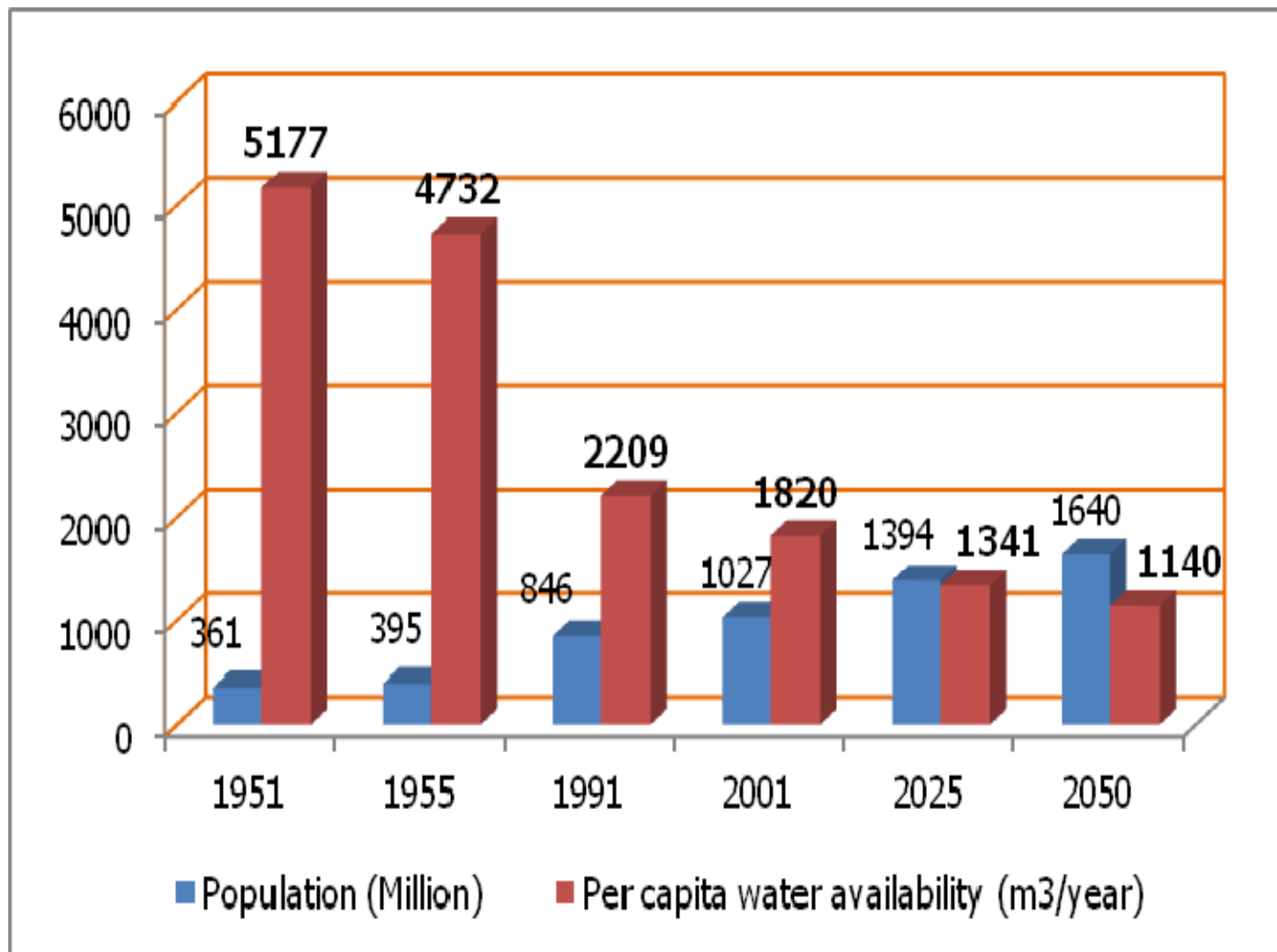
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Water Resources (CAD)*

**Principal Secretary,
Government of Maharashtra**

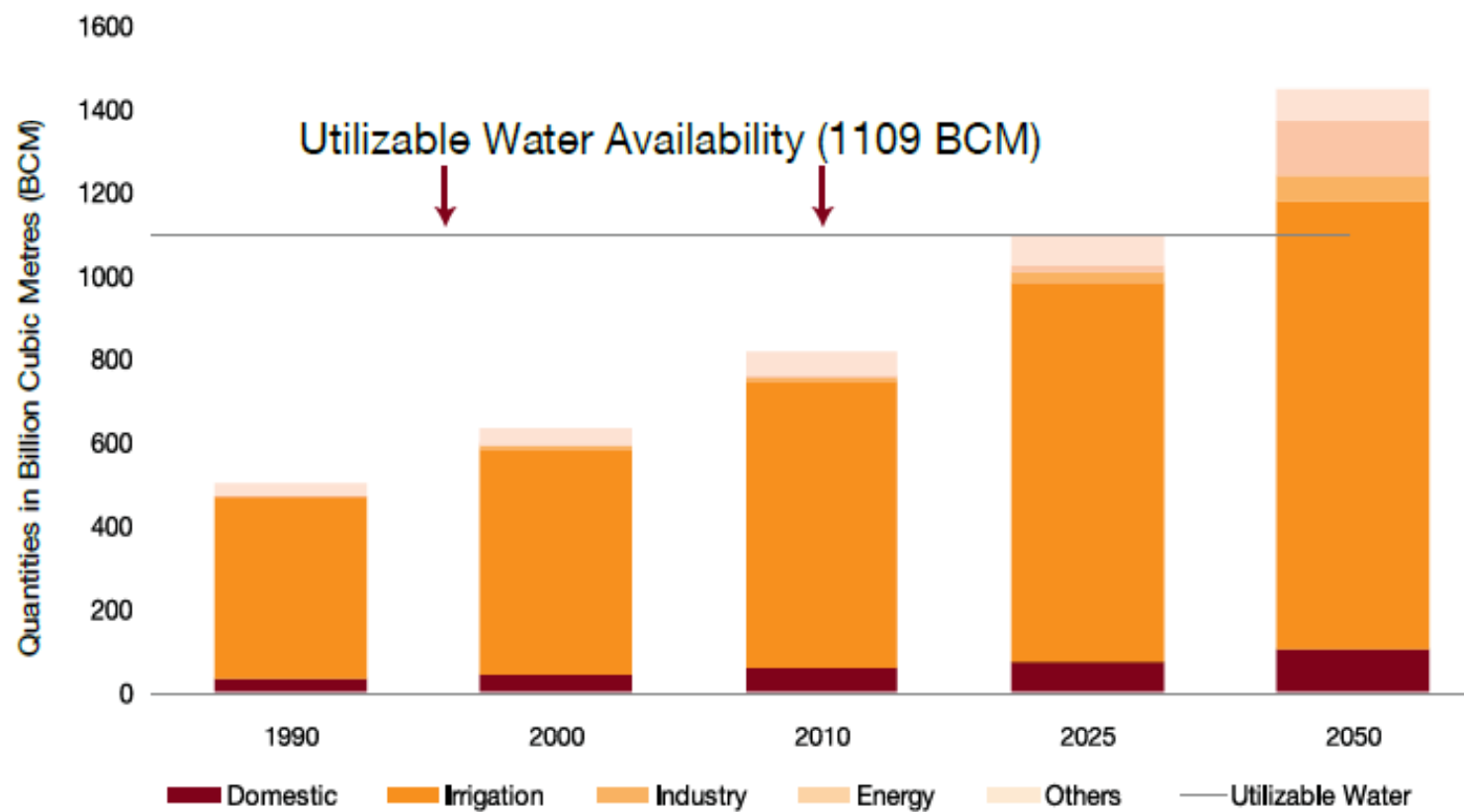


ALL WATER IN INDIA IS RECYCLED!

WATER AVAILABILITY



Demand Supply Gap



Source : www.indiastat.com; CWC



Benchmarks

24x7 supply,
Universal access,
Efficiency,
Sustainability

Reality

Intermittent,
Poor coverage(slums),
High cost and NRW,
Poor cost recovery

We need Urban Reforms



We Build-
Neglect and
Rebuild



MSNA -Reforms in Urban Water Supply

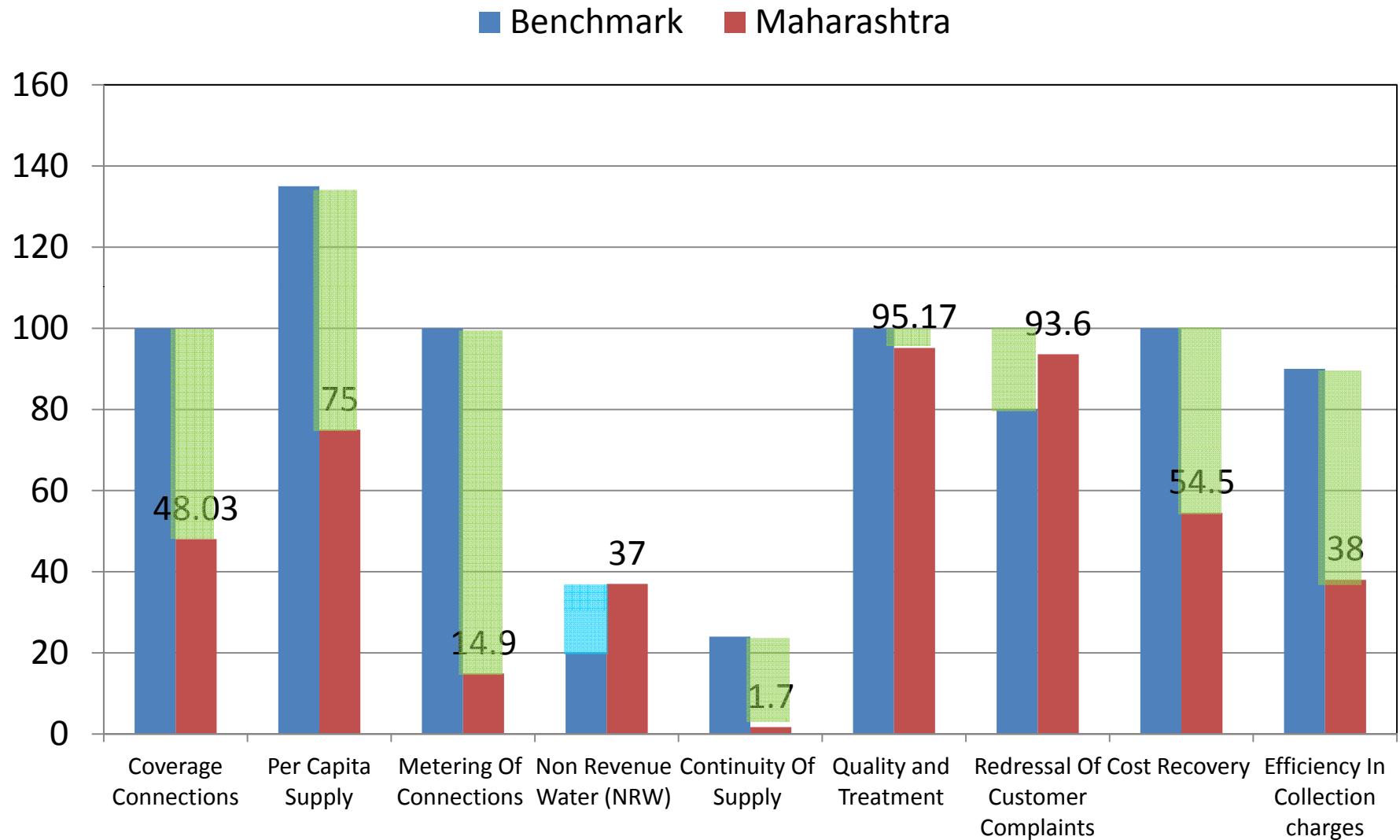
How is Performance Gauged?

Nine Performance Indicators



1. Coverage, Water Supply Connections
2. Per capita supply of water
3. Extent of metering
4. Continuity of water supply
5. NRW Reduction
6. Quality of water Supply
7. Redressal of complaints
8. Cost recovery in water supply services
9. Efficiency in collection of water charges

Gap in Service Level Benchmarks



Key feature of MSNA

Reforms led investment for improved, sustainable services

- **Gol has prescribed Benchmarks**
- **MSNA is an approach to reach the benchmarks; implementation in 3 phases**

MSNA Phasing

- House to House Survey
- Hyd. Model
- Bulk Meter
- Water + Energy Audit
- Pressure Management
- GIS Mapping
- PPP in O&M
- Computer Billing

**Phase-I
(2009-12)**

**Phase-II
(2012-17)**

- 24x7 in pilots
- Sustainable sources
- Metering 80%
- Collection efficiency (80%)
- Sewerage system
- MIS
- Tariff framing
- Solid waste Mgmt.
- ODF cities

- 24x7 System
- Metering 100%
- Collection efficiency (100%)
- Sewerage including STP

**Phase-III
(2017-25)**¹¹

Reforms and Expected Outcomes

Consumer Survey

- Detect illegal connection
- Regularization
- Increased Revenue

Water Audit and Metering Volumetric Pricing

- Assess NRW, reduce leakages
- Save water, reduce expenditure

Hydraulic modelling

- Rationalize network
- Reduced Capex, and O & M

Reforms and Expected Outcomes

Energy Audit

- Increased efficiency
- Reduced expenditure

Computerized billing

- Increased billing efficiency
- Increased income

O & M

- Management Contracts
- Sustainability

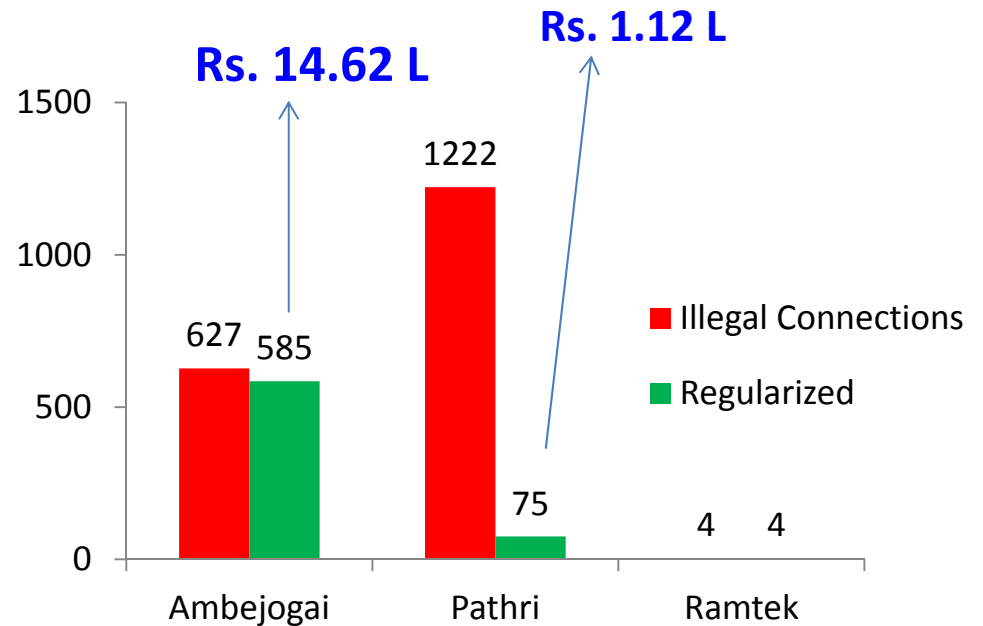
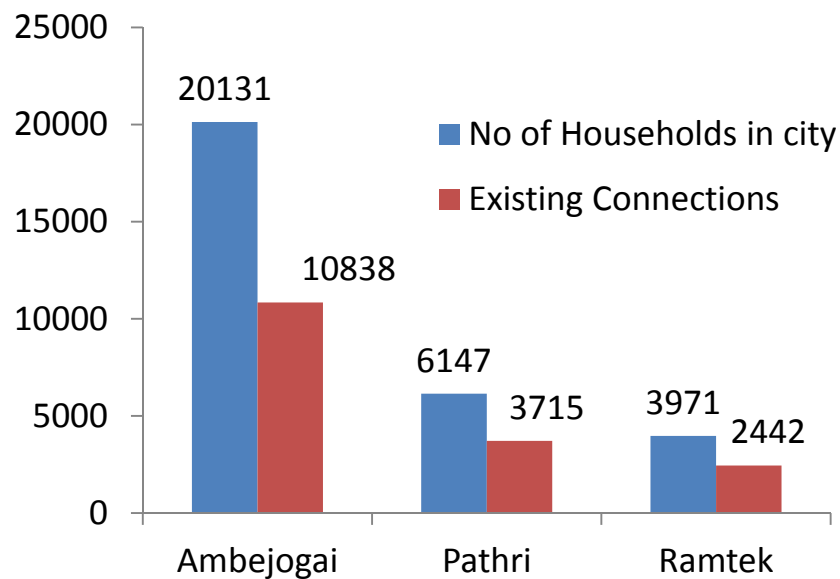
Results emerge

MSNA

Results start emerging...

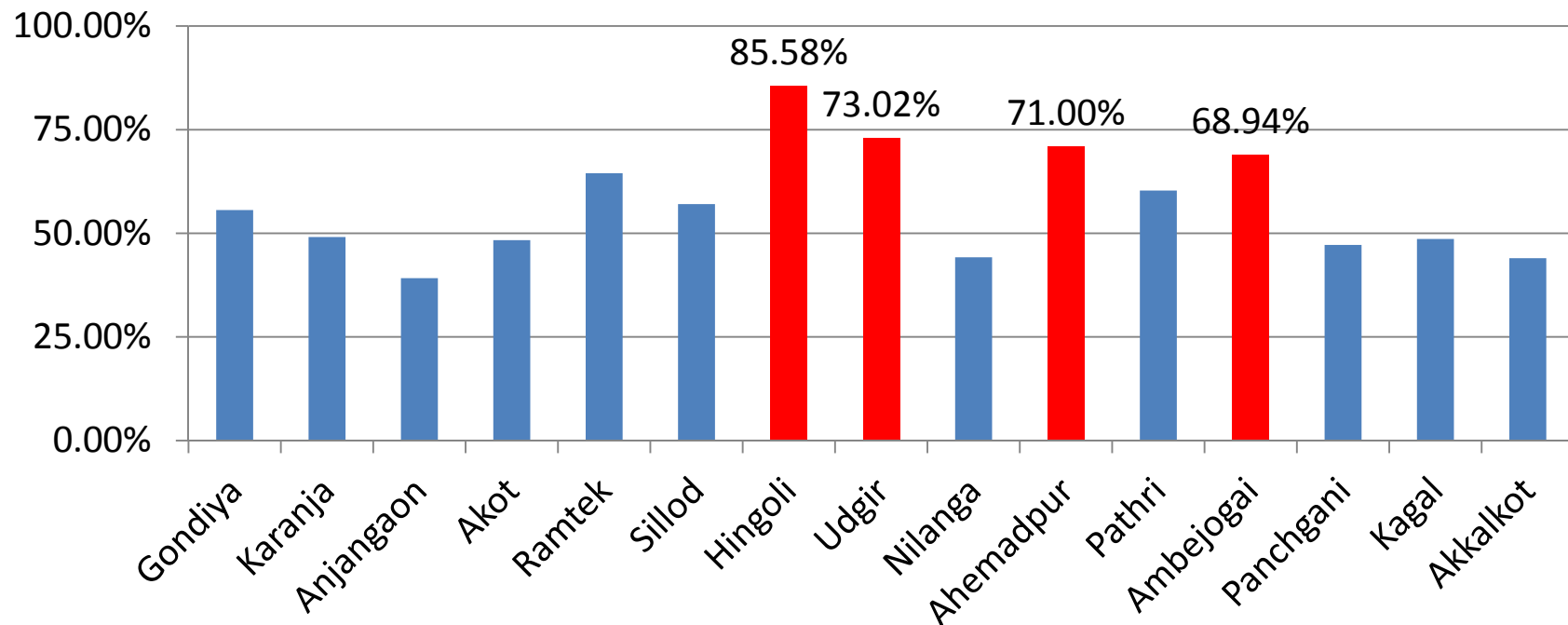
- **Increase in Revenue**

- *Illegal connections identified*
- *Better and regular billing cycle*
- *Improved collection efficiency observed*



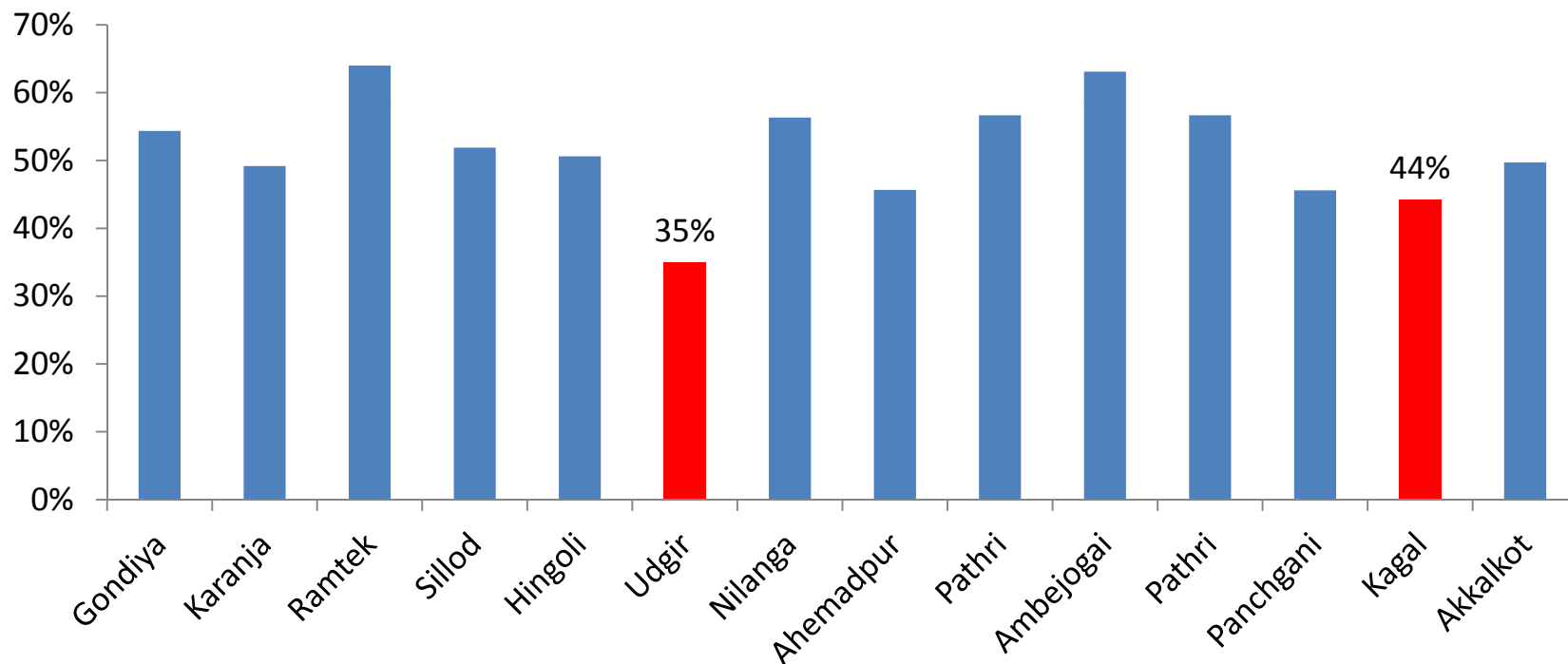
Identification of % NRW

- *Water Audit carried out*
- *Awareness regarding NRW took place due to reforms*
- *NRW in internal distribution is more*
- *Greater scope for household metering and efficient water management*



Energy Audit

- *Increased pump efficiency leading to saving in power cost +*
- *Due to decreased NRW, pumping hours saved →*
- *Expenditure on operations reduced (added savings)*

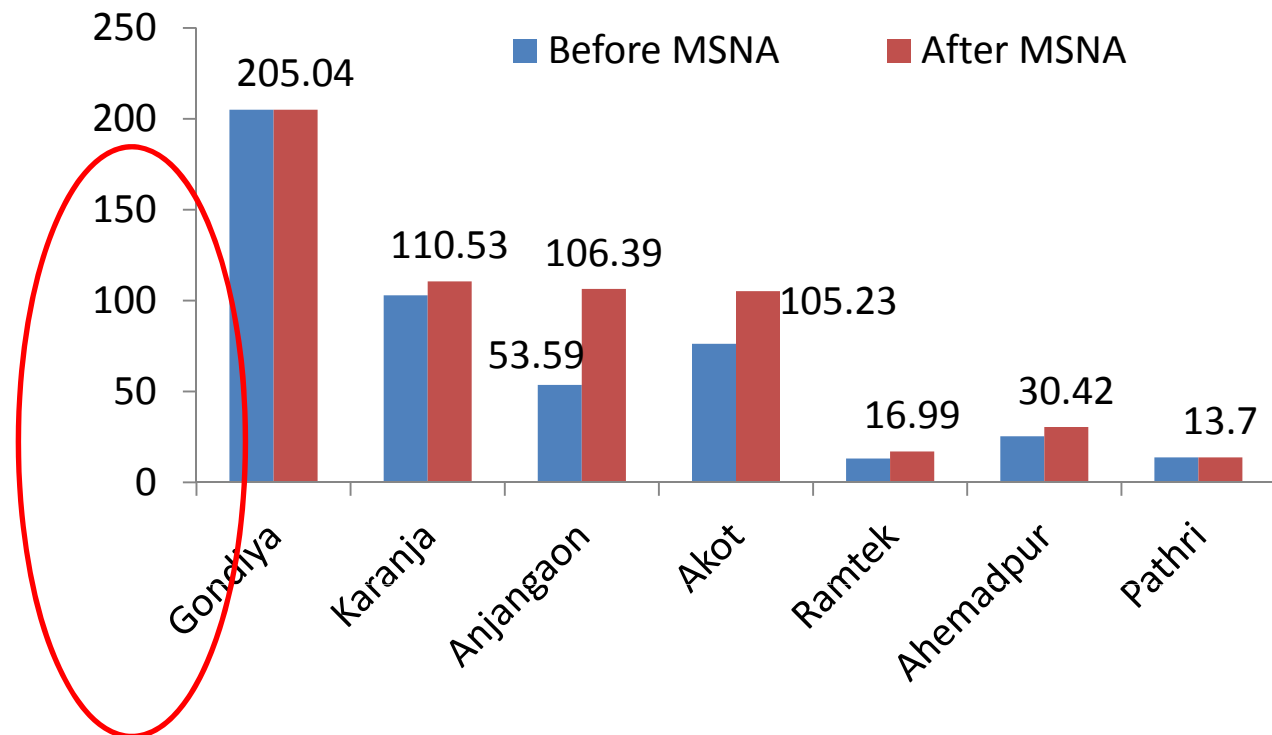


Translates to savings in expenditure...

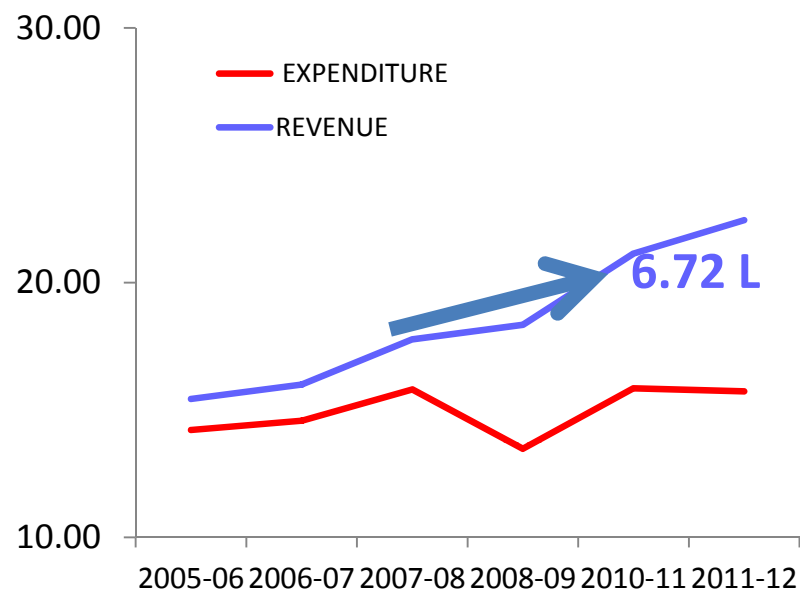
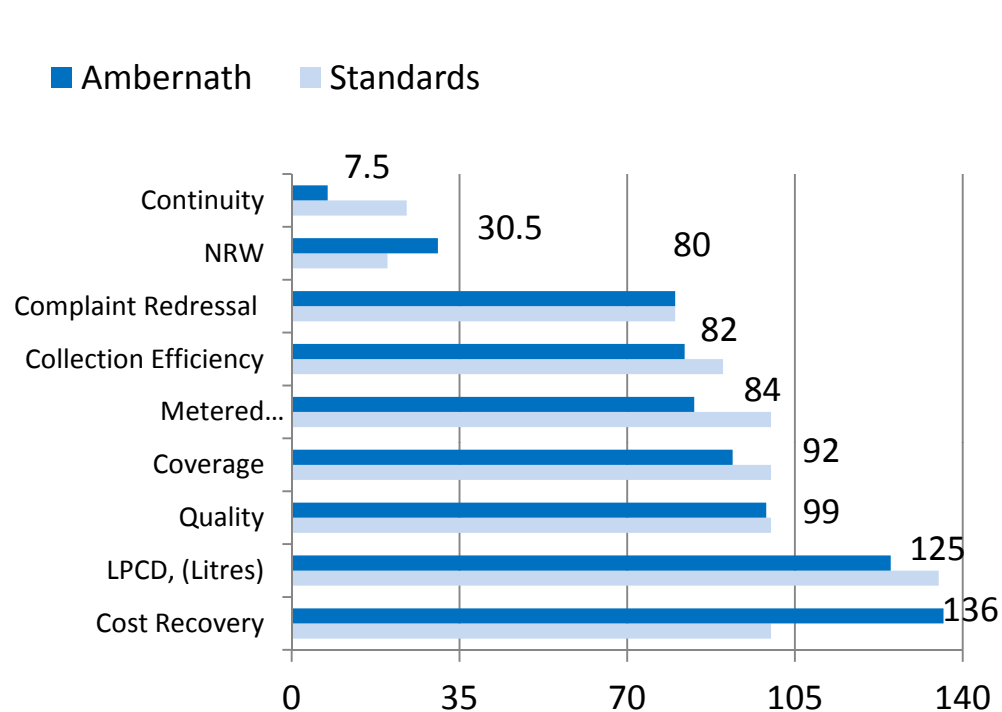
| Indicator | Srivardhan | Manmad | Manvat | Ramtek |
|-------------------------------|------------|--------|--------|--------|
| Pump Efficiency % | 50% | 43% | 44% | 75% |
| Energy Bill Saving, Rs. Lakhs | 0.87 | 37.51 | 3.66 | 2.44 |

Improvements in Water Tax Collection (Rs. Lakhs/year)

- *Billing efficiency has enhanced*
- *Monthly billing cycle being adopted*
- *Computerized billing mechanism adopted*
- *Outsourcing has also been done in some cases*
- *Tax Collection doubled in some cases*



Ambernath, Thane



Thank you

Challenges

- Competing demand
- *Increasing demand*
- Sustainability of source
- *Affordability & willingness to pay*
- Maintenance of assets
- *Operational sustainability*

UNDERLYING CAUSES OF PROBLEM

- WATER – AN ECONOMIC, SOCIAL, EMOTIVE GOOD
- PRESUMED RIGHT TO BE SUPPLIED FREE OF COST
- INCREASING COST OF PRODUCTION AND TRANSPORT OF WATER
- LARGE BUDGETARY REQUIREMENTS

UNDERLYING CAUSES OF PROBLEM

- LOW DEBT SERVICING CAPABILITY OF ULBs
- FINANCIAL VIABILITY AN ISSUE
 - Reluctance to levy appropriate tariff
 - Weak enforcement of recovery
- LACK OF PROFESSIONAL MAINTENANCE OF ACCOUNTS
- POOR BILLING AND COLLECTION EFFICIENCIES

UNDERLYING CAUSES OF PROBLEM

- WEAK APPROACH TOWARDS WATER MANAGEMENT (limited to water supply)
- LACK OF DEDICATED AND TRAINED PROFESSIONALS AND WEAK INSTITUTIONAL ARRANGEMENTS FOR O & M