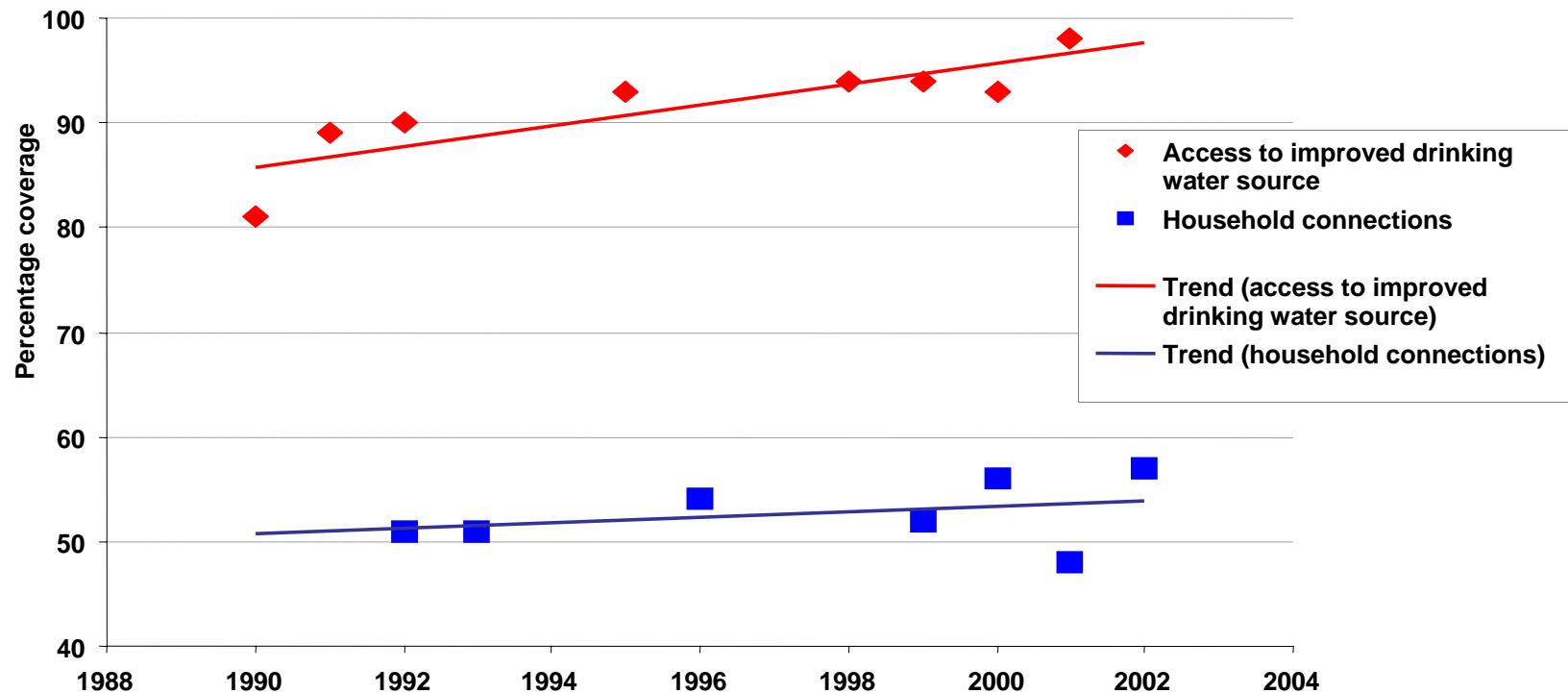


India Water Supply & Sanitation

**“Bridging the Gap between
Infrastructure and Service”**

**Smita Misra
Fook Chuan Eng
SASSD URBAN & WATER
World Bank
February 2007**

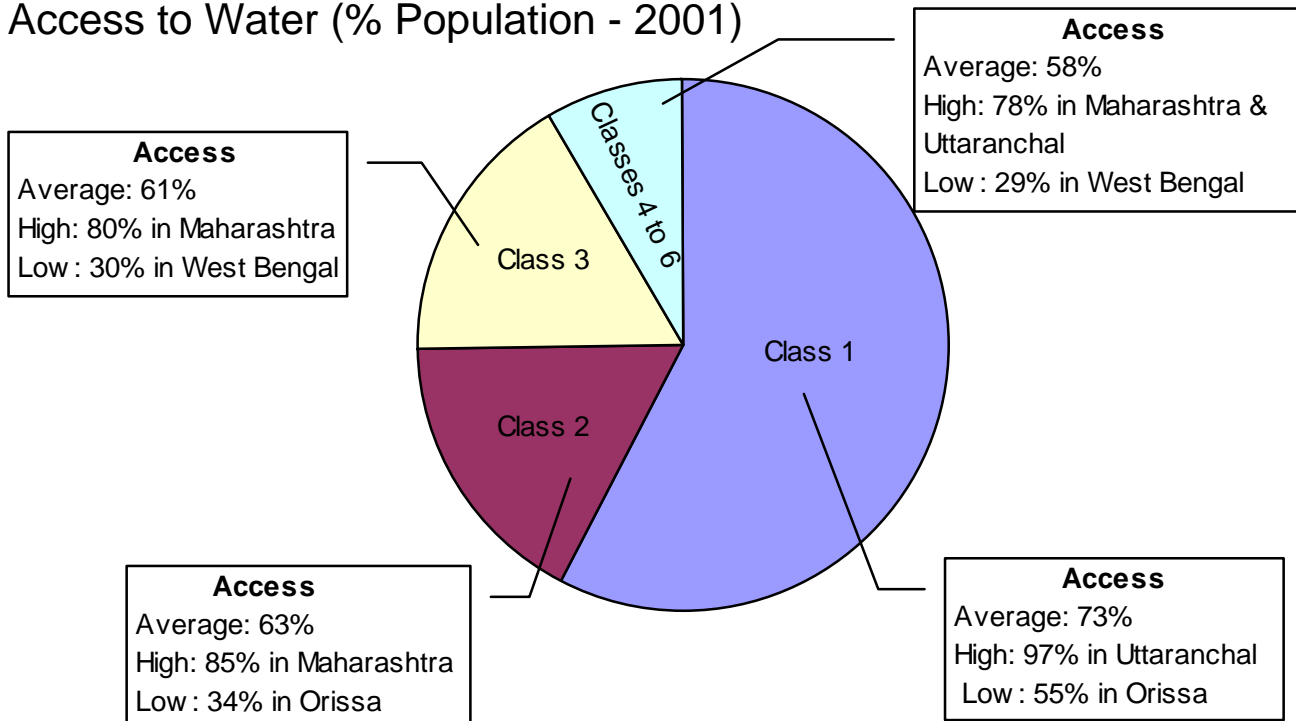
Access to water supply infrastructure is increasing in urban areas...



Source: For 1991, Census of India; for 1993, Demographic and Health Survey 1992/93 and National Sample Survey Organization (NSSO); for 1996, NSSO; for 1999, National Family Health Survey 1998/99; for 2000, Multi-Indicator Cluster Survey.

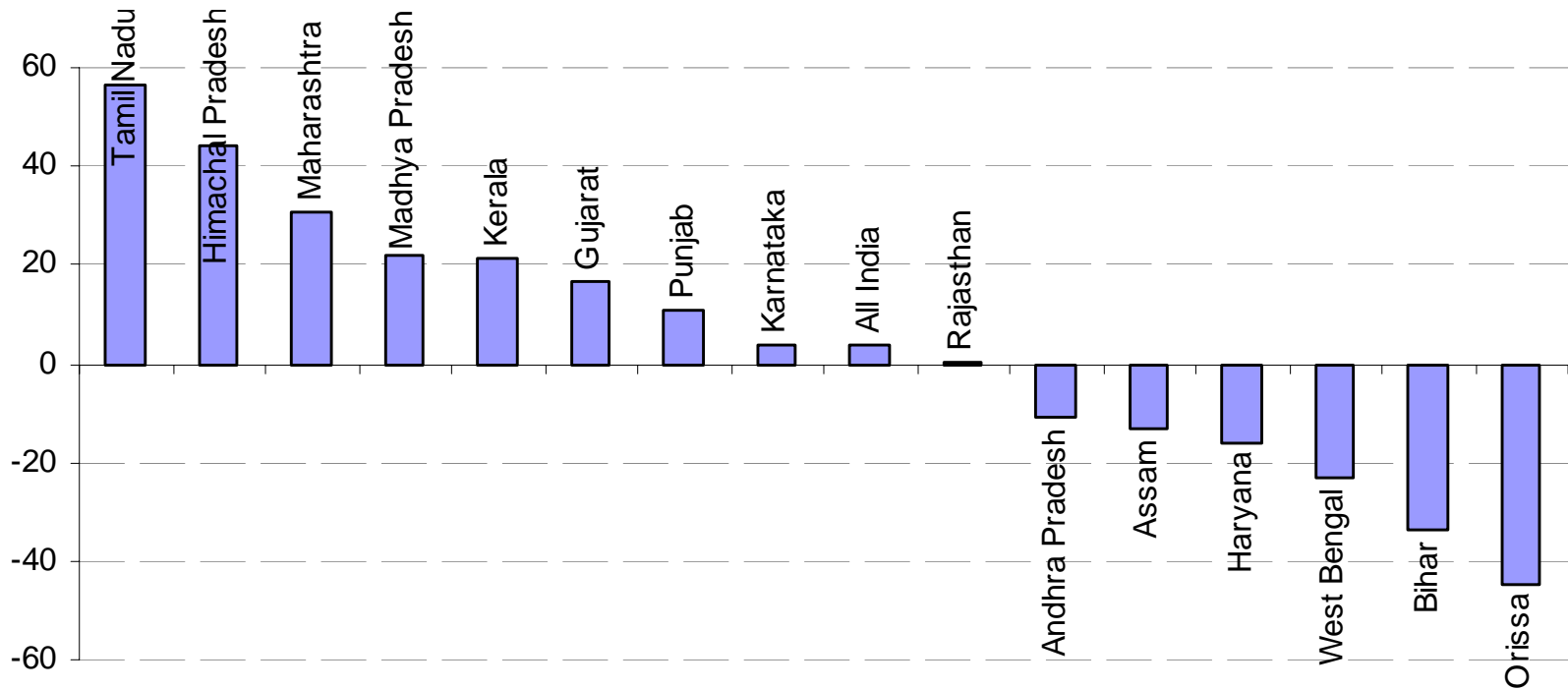
...but coverage is still uneven...

Access to Water (% Population - 2001)



Source: Census 2001

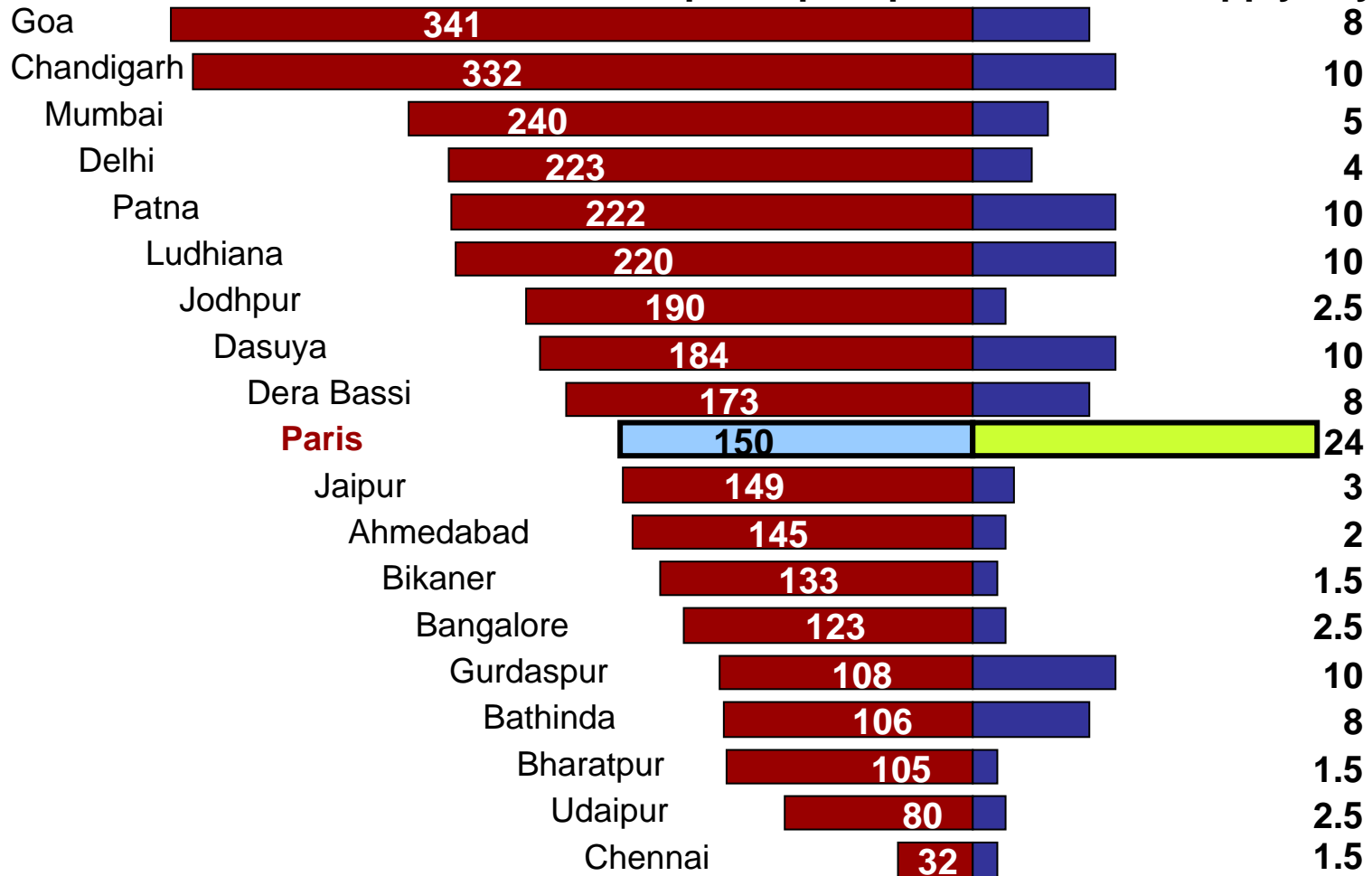
... piped water coverage has slipped...



Source: Census of India 1991 and 2001.

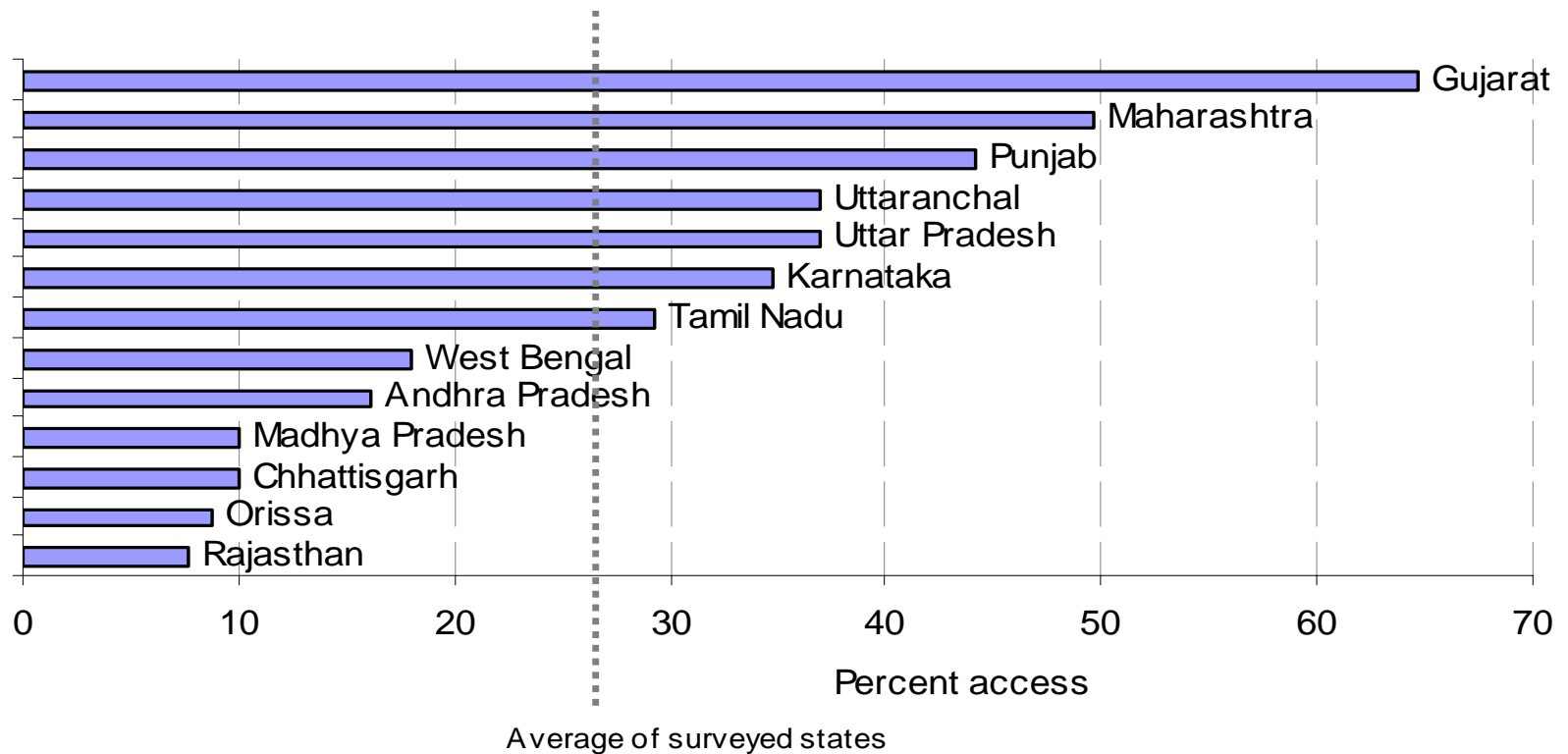
No city in India has 24/7 water ...

per capita lpd vs. hours of supply/day



Source : Data collected by WSP-SA

Access to sewerage facilities is very low...



Source: CPHEEO 2000.

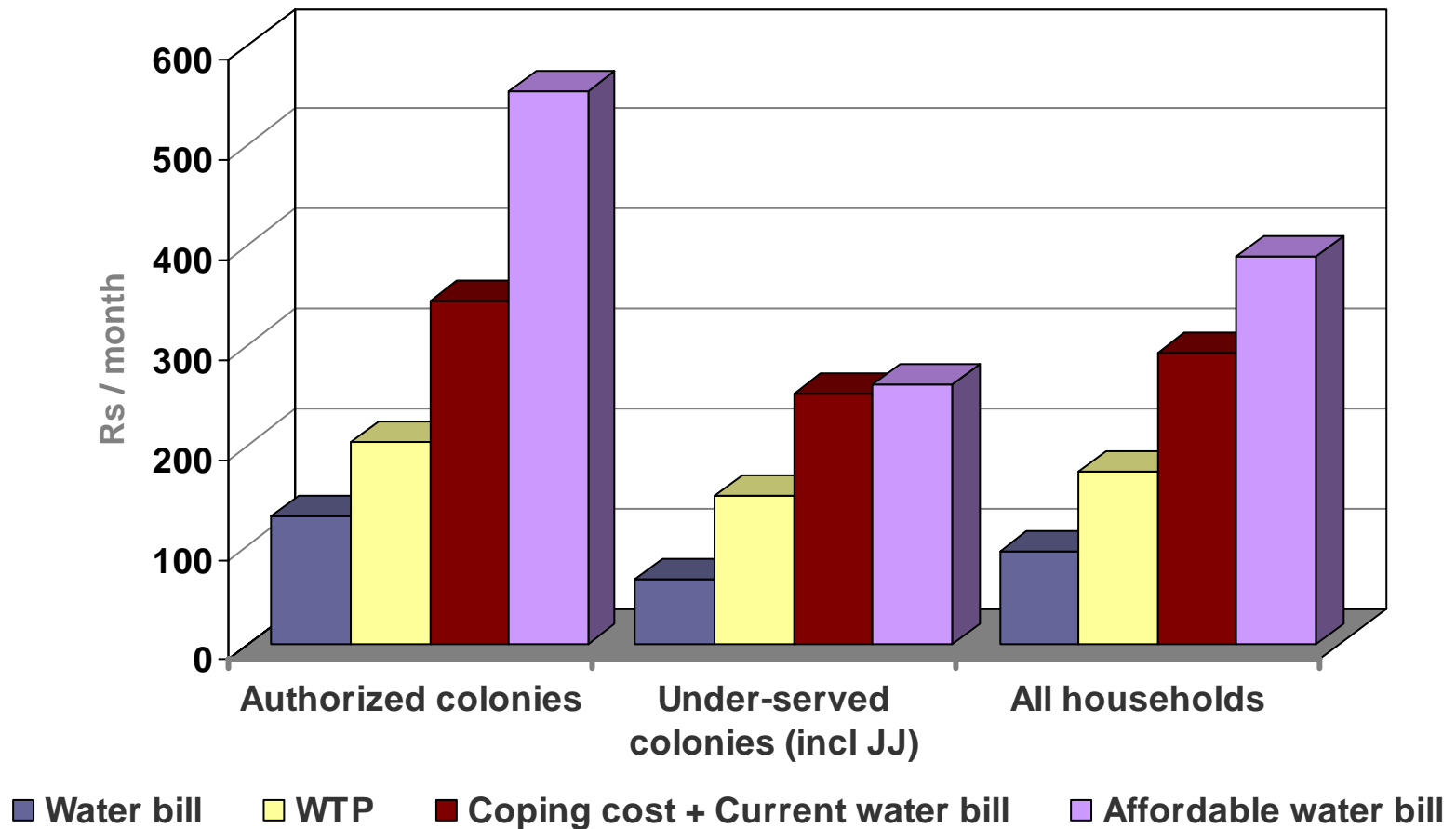
Summary Urban WSS Issues

- 💧 Uncontrolled water abstraction and usage
- 💧 Operation cost not recovered, and public subsidies not always benefiting poor
- 💧 Capital expenditure not recovered, and left mostly to governments to shoulder
- 💧 Design of projects seldom take into consideration household preferences and willingness to pay

Result to households

- 💧 Intermittent water supply & raw sewage overflow
- 💧 Leading to high coping costs

Household WSS budget is much higher than the water bill (Delhi 2005 Survey)...



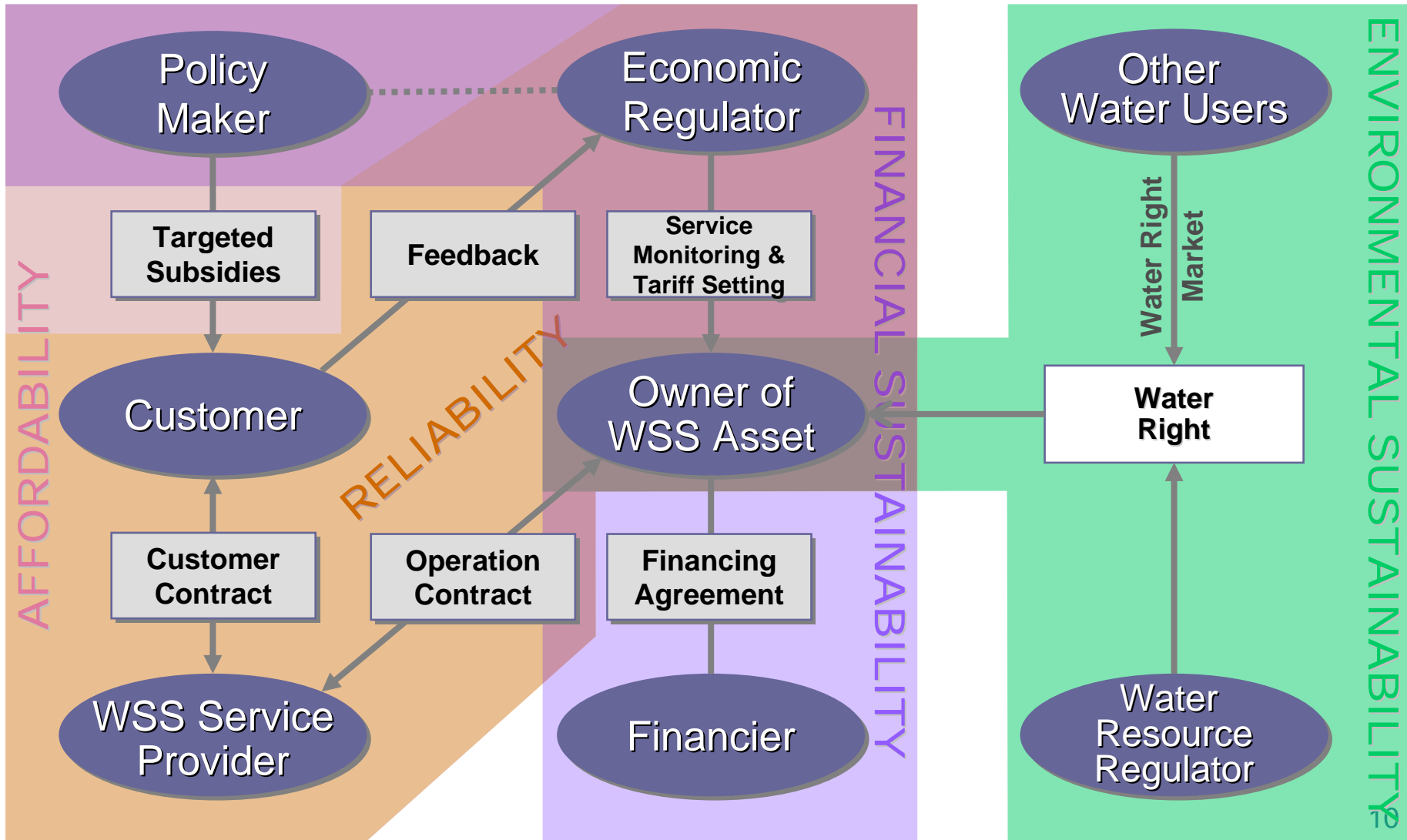
Key Recommendations on how to 'Bridge the Gap' between Infrastructure and Service ...

💧 Improve

- **Reliability** of WSS Service: *Reliability* refers to the permanence of water supply and safe removal of wastewater and excreta from the immediate environment.
- **Financial Sustainability** of WSS Service : *Financial sustainability* refers to the recovery of O&M as well as capital costs from user charges rather than general taxes.
- **Environmental Sustainability** of WSS Service : *Environmental sustainability* refers to proper recharge of aquifers and reservoirs, robust water rights, and capacity to protect water quality against increasing domestic, agricultural, and industrial pollution.
- **Affordability** of WSS Service : *Affordability* is measured by comparing combined cost of primary and substitute water supply and sanitation services with the cost of public services that meet good quality standards and for which user charges cover the full (O&M and capital) costs.

💧 Build Capacity of WSS Sector – build an identity for the WSS sector

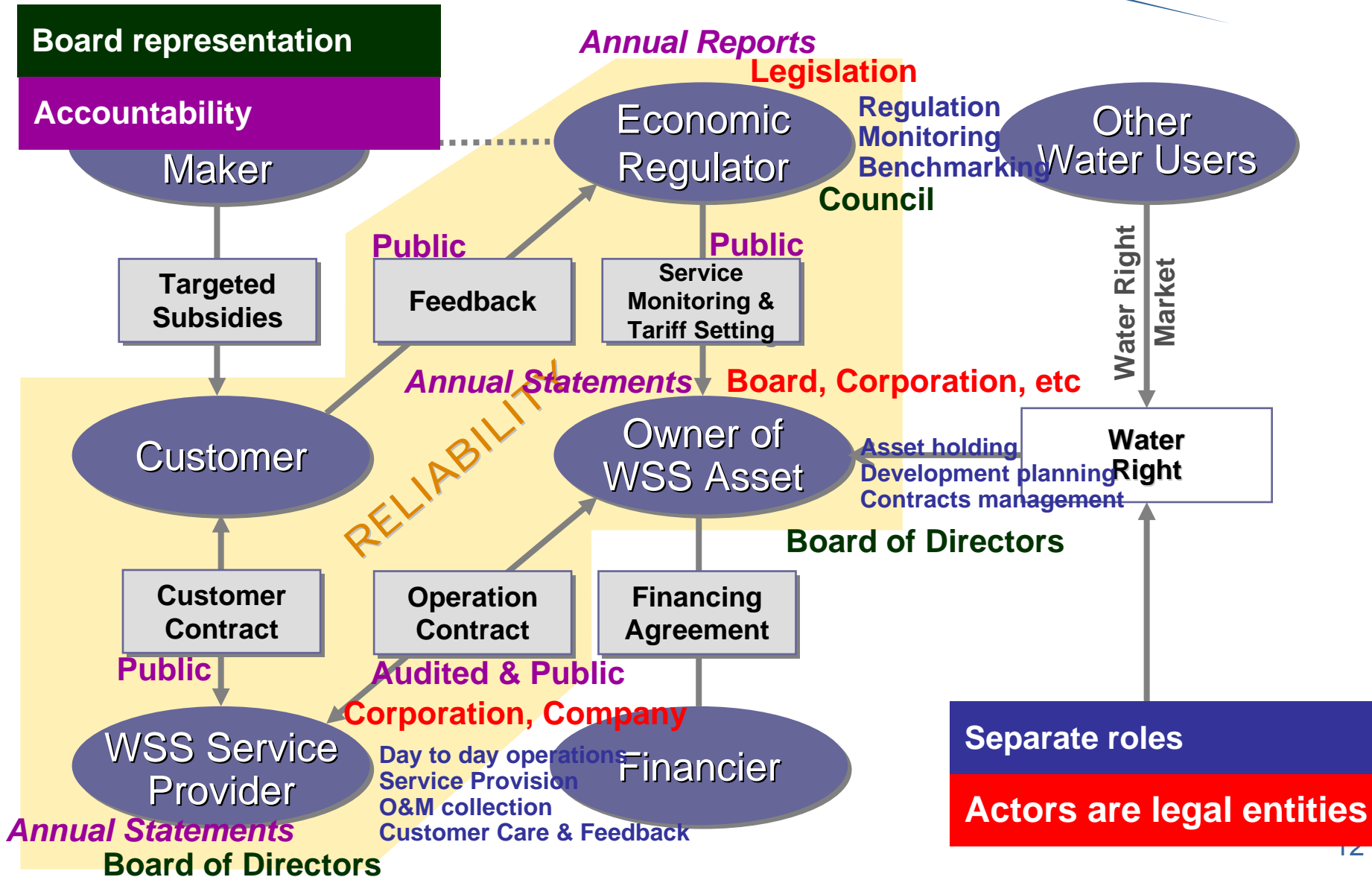
Operational Framework for improving Accountability



Improving the Reliability of WSS Service

- 💧 Clarify roles of various actors to improve accountability
 - Each actor's set-up & operations ring fenced
 - Relationships between actors formalized
 - Support commercialization (including PSP arrangements)
- 💧 Decentralize full responsibility of WSS to lowest appropriate level of government
 - Stakeholders representation and participation

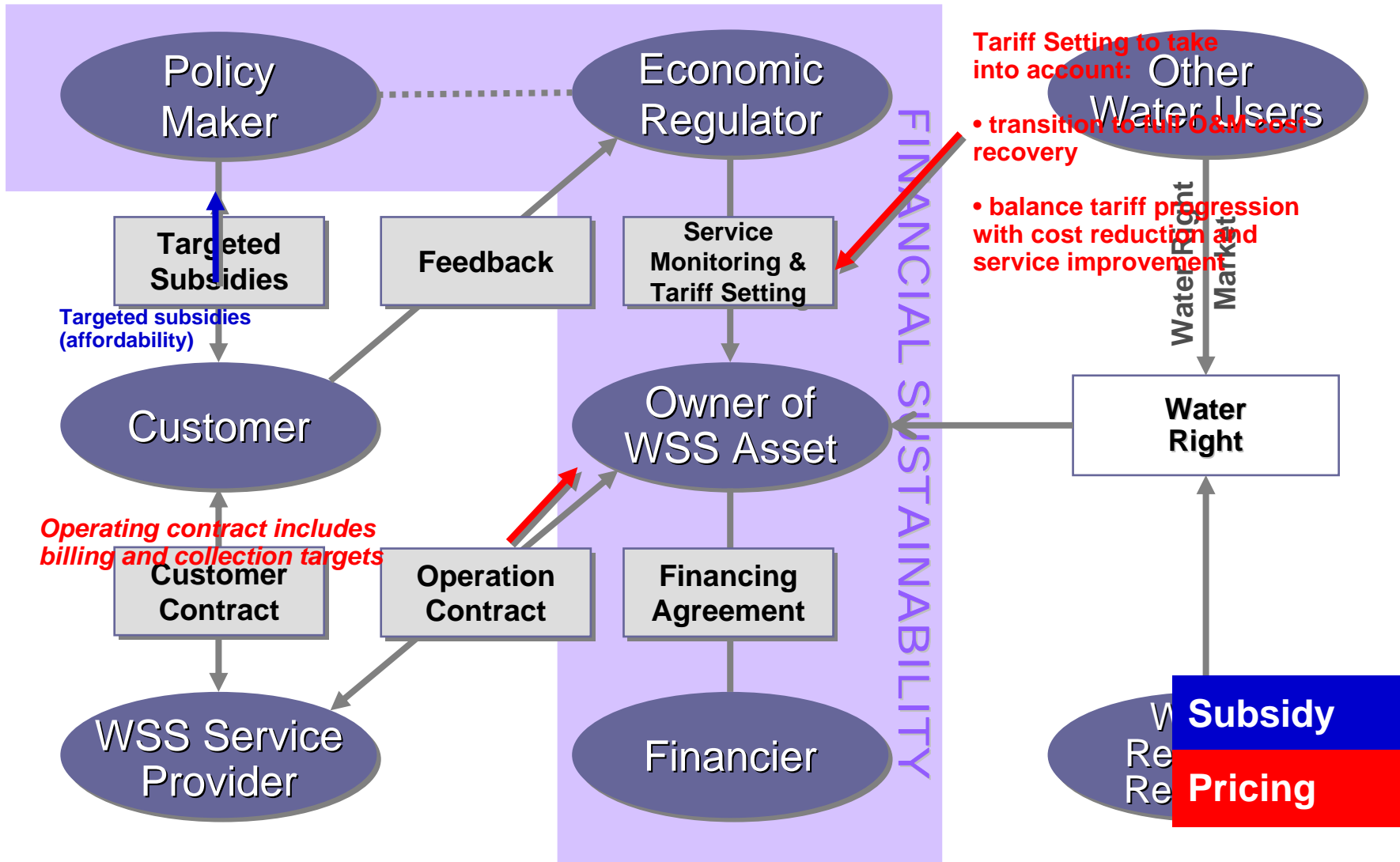
Improving Reliability of WSS Services



Improving the Financial Sustainability of WSS Service

- 💧 Price WSS services using sound financial principles
- 💧 Create incentives in contracts for gradual transition to full O&M cost recovery
- 💧 Finance large gap between revenue and cost in a transparent manner
 - Balance O&M cost reduction and price increases over time
 - Balance price increase with service improvements

Improving the Financial Sustainability of WSS Service





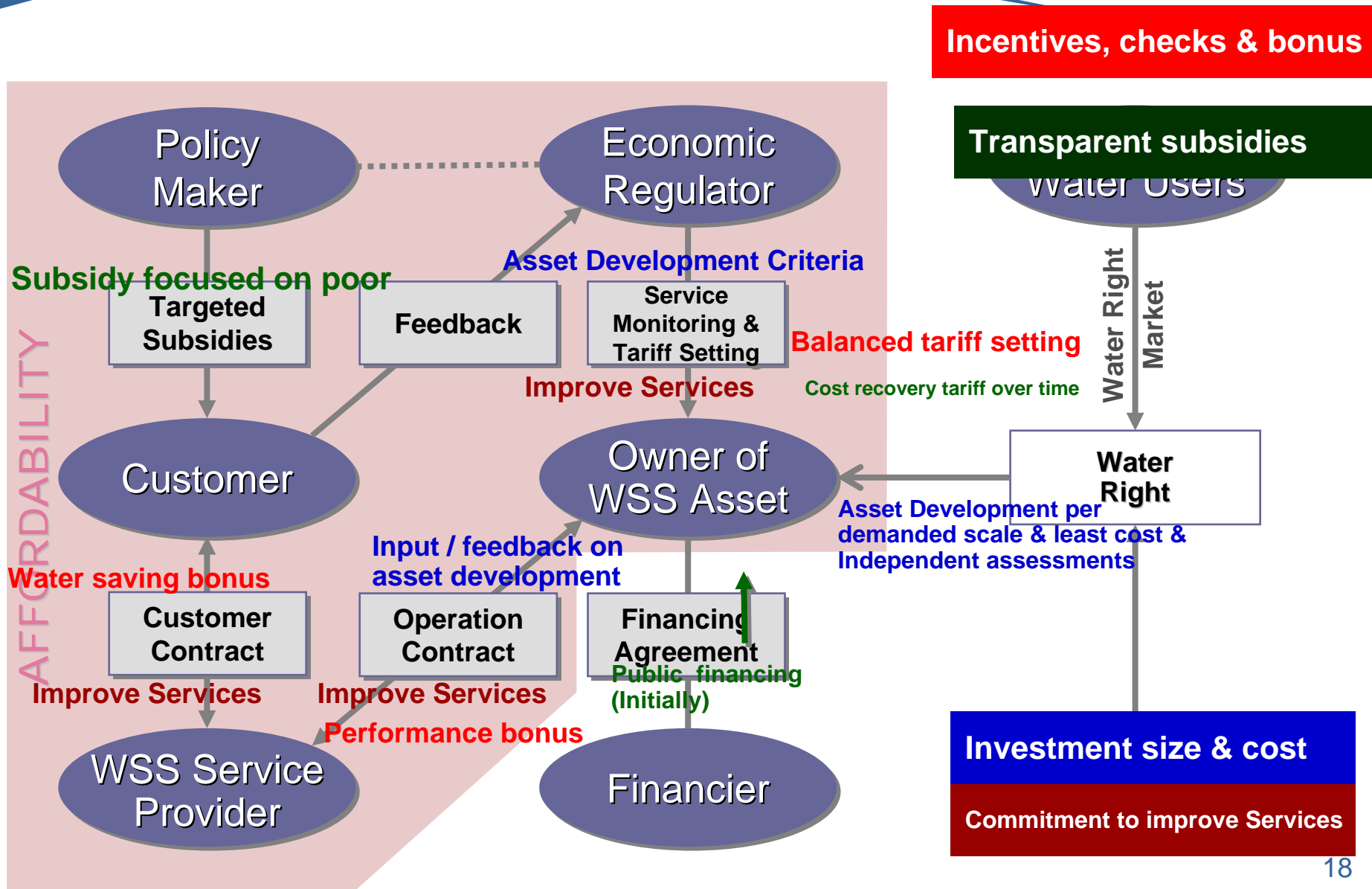
Improving the Environmental Sustainability of WSS Service

- 💧 Price WSS service according to sound economic principles
- 💧 Strengthen water rights and develop water rights markets
- 💧 Rules to
 - Limit groundwater depletion
 - Set realistic environmental objectives

Improving the Affordability of WSS Service

- 💧 Reduce costs by adapting design criteria
 - Move to 24/7 supply to reduce consumer coping costs
 - Size investments to requirements
 - Use least cost investment options
- 💧 Reduce costs by adapting O&M arrangements
 - Institutional arrangements
 - Targets plus incentives and bonus systems
- 💧 Implement cost recovery strategy adapted to the poor
 - Gradual transition to cost recovery
 - Targeted subsidies to the poor

Improving the Affordability of WSS Service



Build the Capacity of the WSS sector

- 💧 Create identity to the “urban WSS industry”
 - Create professional association of WSS service providers
 - Training, benchmarking, best practices, certification...
 - Adapt programs of training institutions to needs of WSS service providers beyond technical issues
- 💧 Develop stakeholder information programs
- 💧 Develop capacity of ULBs to initiate and implement WSS projects

Can India meet Target 10 of the Millennium Development Goal?



- Access to WSS infrastructure is likely to increase if India sustains its past level of investment
- However, India is unlikely to meet Target 10 for reliable, sustainable and affordable WSS service without adjustment of its policies, institutional arrangements and financial incentives

Translating Concept into Practice

- 💧 Specifics are different across states / cities / urban centres
- 💧 Analysis of specific prevailing situation necessary
- 💧 General principles are similar:
 - Finding the balance for reliability, sustainability and affordability, through:
 - Confirmation of institutional framework
 - Separation and clarification of functions
 - Clarification of relationships between functions
 - Diverse stakeholder participation for oversight

Translating Concept into Practice

- 💧 Formulate and implement comprehensive plans, integrating investments, institutional management and operations
- 💧 Formulate continuous improvement programs with accountable targets
 - State:
 - Financing strategy (targets and standards, formulate public investment programs, institute independent appraisal & monitoring, guidelines for financing)
 - State Agencies:
 - Operational and business plans for each agency (vision & mandate, development program, relationship with other agencies, implementation plans)
 - MCs / ULBs / Service Providers:
 - Business plans, Performance Improvement Programs tying investments, management and operational targets (financial and business plans, financial forecast for operations of a dedicated entity, audited accounts and other oversight mechanisms)