

Probes in Urban Water Sector

**Impact of Infrastructure and Governance Transformations of JNNURM on Large, Medium and Small Cities
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This note on probes in water sector is to facilitate asking critical questions for the water sector that will be useful for developing case studies.

A. Situating urban water sector in context of the city, region and state

The starting point for urban water sector in a city is to understand its evolution and present situation in a large context of the region and the state. The first step is to understand the technical details regarding extent of water supply and coverage in the city. Understanding and mapping the institutions involved in urban water sector in the city and state would be the next step. Urban water supply is either provided by state level parastatal, city level parastatal or urban local body. The section is expected to provide an analytical context for the sector. The teams are expected to provide a background of water situation in the city, map the institutions involved in urban water supply and the roles they play in this section and highlight key issues of the urban water sector in the city.

This section will provide

1. Background of water situation in the city
2. Map the institutions (both state and city level) and explain the roles they play in water sector in the city
3. Highlight key issues of the urban water sector in the city.

B. Water Sector and JNNURM

1. Information about Projects

- spatial location of project,
- project descriptions, cost - estimates, funds allocations, designs, tenders and other technical details, conflicts around projects, perspectives of different stakeholders.
- Sources : 1) CDP 2) Detailed Project Report (DPR), 3) agreements, 4) tender, 5) minutes of meetings, government resolutions,

appraisal reports and other relevant official documents 6) literature review 7) media clippings (in English and vernacular if possible).

2. Mapping Institutions in Water Sector

- Trajectory of water sector in the city over time – Sector milestones
- Key issues in the water sector
- Understanding different institutions/agencies involved in the water sector

3. Understanding Lifecycle of JNNURM water projects

- Who makes decisions in different stages from formulation to implementation
- Key challenges for the project at different stages
- Role of citizens and civil society organisations in decision making

4. Studying outcomes of projects

- Four dimensions of impact of projects on service delivery for residents and urban poor- Equity, Access, Quality and Affordability
- Stakeholder analysis for understanding real needs - understanding different perspectives on water sector projects- officials, different resident groups and other stakeholders.

C. Assessing Urban Water Sector Reforms in JNNURM

1. Financial Reforms

- Separation of budget for water has happened at the municipal level or ring-fencing of water sector for better financial information
- Types of User charges or tariffs in urban water supply- How are tariffs formulated and changes in tariffs post- JNNURM
- Metering and Billing, how is this done , what role has JNNURM played in changing this?
- Financial information- Historical analysis, loans taken for sector/parastatal, bonds issued

– Water Audits- To find information about where losses are happening in the system and steps for controlling losses, unaccounted water

2. Institutional Reforms

- Staffing Pattern : Present pattern, Changes in roles and responsibilities, changes in numbers
- What is dominant model of water supply (for example 24x7)
- (If)Private Sector Participation in different institutional forms (BOT, lease contracts, service delivery contracts)
- State/City Parastatals, transformation of roles and functions after JNNURM, their role in reforms both pre-JNNURM and JNNURM
- What is the Relationship between ULB and Parastatal, what are the conflicts (reforms, provisioning)
- Regulatory interventions (Maharashtra has seen lot of action)

D. Broad understanding of reforms in urban water sector and its transformation post- JNNURM

- **Studying alignment of reforms** between national, state and ULB levels – How do state and ULB respond to reforms outlined at national level in water sector
- **Pro-activeness of the particular state** has been in water sector reforms. It is widely considered that Maharashtra and Tamil Nadu have implemented many water sector reforms before JNNURM. If so, an account on some of the important reforms undertaken and contexts in which they were undertaken would be useful to provide a clear context with relation to JNNURM reforms. Odisha and Mizoram have started implementation of reforms later than these states.
- **Cost recovery in water sector** is through user charges is a major reform in the sector. To achieve, this reform many cities have been implementing digital meters for water supply and reduction of non-revenue water. The justification for cost recovery is capital intensive nature of water supply infrastructure and need for expansion both in quantity and spatial coverage.

- **Public Private Partnerships** in urban water sector is another major reform in JNNURM but which are also being pushed by other drivers such as international funding agencies. Positions/stances and resistances from different stakeholders to privatisation of water sector.
- **Role of central-state and state- ULB relationships** in water reforms
- **Role of parastatals** especially in reforms can be critically assessed.
- **Understanding resistances** of different groups in the cities to these reforms.
- **How reforms are changing allocations of water** at various levels – individual, neighbourhood, city and regional.
- Understanding Regulatory mechanisms such as water regulatory authorities and urban water users associations if they have been constituted.
- Services level benchmarks have been introduced in JNNURM , what are the city level experiences with these benchmarks and its impacts on citizens.

D1. Dominant Models in Urban Water Sector

- What is the dominant model of water supply in the city? How do we understand that. As result of reforms, many models in urban water sector such as 24x7 water supply and PPP models of urban water supply which needs to be critically evaluated at city level.
- Are there alternative models such as decentralised urban water supply systems? What role do these systems play and in what contexts where they set up?
- Impacts on Informal markets of water- Water tankers and illegal connections

D2. Assessing Impacts in Urban Water Sector

Most of the urban water supply systems aims for four main goals -**Efficiency, Effectiveness. Financial sustainability and Equity**. We can critically evaluate how the JNNURM has helped the city in furthering any of these goals especially equity.