



# Financing Urban Water Supply and Sanitation in Gujarat - A Paper

CEPT University

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AND SANITATION IN GUJARAT – A PAPER**

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## Introduction

*Since 2005, the central and state governments in India have made targeted efforts to develop basic infrastructure services in the country's urban sector. Several of these efforts have translated into an improved service delivery and fiscal scenario for most services including urban water supply and sanitation (UWSS). This positive trend is most visible in the Indian state of Gujarat where, in 2007, an estimated 97.8 per cent of all households had access to improved sources of drinking water supply and where UWSS investments registered a 26 per cent rise between FY 2005–06 and FY 2010–11. But a closer look at the data paints a more nuanced picture. Data suggests that current development efforts are skewed towards infrastructure creation instead of service delivery improvements. Substantial autonomy to use project funds co-exists with lack of capacity to effectively use these funds. An assessment of the financing of UWSS in Gujarat shows the current need for non-fiscal interventions to increase sustainability of newly created UWSS infrastructure.*

In recent years, several big ticket central and state sponsored development programmes have given a much needed thrust to India's urban sector. These programmes are intended to provide sizeable funding assistance to rehabilitate and expand coverage of basic infrastructure and improve service delivery in urban areas. Interestingly, most programmes have laid considerable attention to the improvement of UWSS services (64 per cent of all projects approved under Jawaharlal Nehru National Urban Renewal Mission, or JNNURM, are for the UWSS sector).<sup>1</sup> While the extent of

success of these programmes in meeting their objectives differs across states, Gujarat has made noticeable progress, especially in the area of UWSS. Between 2002 and 2007, the percentage of population with access to improved sources of drinking water supply has increased from 80.1 per cent to 97.8 per cent, respectively.<sup>2</sup>

Alongside improvements in service delivery levels, the fiscal scenario of the UWSS sector in the state has shown tremendous improvement. The recent years have shown both a rise in budgeted allocations being made to the sector, and a rise in the amounts devolved to urban local bodies (ULBs) of the state. However, there do exist a few distortions in the mechanism currently adopted to devolve the investments to the ULBs, which obstructs their ability to fully utilise these funds, with smaller ULBs reporting very high underutilisation levels of 69 per cent. The focus of the various sector development schemes is yet to shift to infrastructure sustainability instead of creation. Though Gujarat is ahead or at par with other urbanised Indian states in terms of infrastructure delivery, there are urgent interventions required which would aid holistic development of the UWSS sector in the state.

## Increased UWSS Access amidst Rising Urbanisation

With an urban population of 25.7 million in 2011, Gujarat is among the most urbanised states of India. The state registered a decadal urban population growth of 35.8 per cent (between 2001 and 2011),<sup>3</sup> and is projected to

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<sup>2</sup> Analysis based on District Level Household Survey (DLHS-2), 2002–04 and District Level Household and Facility Survey (DLHS-3), 2007–08.

<sup>3</sup> Various Census of India documents, 1991, 2001 and 2011.

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<sup>1</sup> MoUD survey of JNNURM implementation status, 2009.

have 50 per cent of its population reside in urban areas by 2026. Interestingly, as of 2009, 57.5 per cent of this urban population was concentrated in the seven major cities of the state (classified as municipal corporations). For the same year, the population growth in smaller ULBs classified as municipalities was estimated to be at 26 per cent. The population growth patterns indicate the growing importance of larger cities in the state. Two of its cities – Ahmedabad and Surat – feature in the list of richest Indian cities by average income and growth levels. This may not be surprising given that Gujarat’s average per capita income at current prices for FY 2008–09 was 23 per cent higher than the national average. The dynamic economic and industrial base of the state has led it to register a year-over-year (y-o-y) growth of approx 15 per cent between FY 2004–05 and FY 2009–10.

This high income growth is not in isolation, but is matched with a decadal decrease in urban poverty levels in the state. While India’s urban poverty level for 2004–05 was 28.3 per cent, for Gujarat it was 13 per cent. An assessment of the population residing in the slums validates this point. On an average, 26.3 per cent of India’s urban population resides in slums. In comparison, the share is lower for Gujarat at 19.6 per cent.<sup>4</sup>

With respect to provision of basic infrastructure such as water supply, sewerage, sanitation and solid waste management (SWM), data suggests that service levels in Gujarat are relatively better than those in highly urbanised Indian states such as Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu. Information collected from multiple sources indicates that the state has been able to consistently increase

the coverage of population with easy access to safe drinking water. Of the 97 per cent of households with access to piped water supply in 2005, nearly 82 per cent had access through taps on premises.

Urban Gujarat has also done better than many other states in India in terms of sanitation access. As of FY 2007–08, 82 per cent of the state’s urban population had access to improved toilet facilities. These levels are higher than the national average of 75 per cent.<sup>5</sup> Similar service delivery levels are also seen with SWM in the state.

## UWSS Finance and Decentralisation

Assessment of UWSS sector finance in India is incomplete without viewing it in the context of the decentralisation process initiated in the country during the 1990s. Decentralisation in India has its legislative basis in the 74<sup>th</sup> Constitutional Amendment enacted in 1992 which, for the first time, provided a constitutional status to the ULBs. In addition to entrusting the ULBs with increased authority and responsibility, the Amendment also brought about a change in the inter-government fiscal transfer (IGFT) mechanism of the state.

This Amendment made the ULBs in Gujarat responsible for provision of UWSS services. However, their expenditure responsibilities and fiscal authority continued to be determined by state municipal laws and policies. The IGFT mechanism followed in Gujarat has an important bearing on UWSS finance at the ULB level. This is so because, financing of UWSS service follows a complex arrangement involving all three tiers of government, that is,

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<sup>4</sup> MoHUPA and NBO 2010 estimates.

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<sup>5</sup> Analysis based on District Level Household Survey, 2007–08.

central, state and local. While central and state governments provide a significant portion of funds for required capital needs, financing of operation and maintenance (O&M) is to be undertaken solely by the ULBs through recovery of user charges and connection fees from consumers.

Whether or not the decentralisation process has been as effective as intended can be assessed through the volume of UWSS finance, the devolution process, and the extent of focus on the urban poor.

## Institutional and Fund Flow Arrangements

Three institutions, that is, the Gujarat Urban Development Company (GUDM), Gujarat Municipal Finance Board (GMFB) and Gujarat Urban Development Corporation (GUDC) play an important role in the state's urban development funding, in that they deal with different sources and aspects of urban funding and devolution.

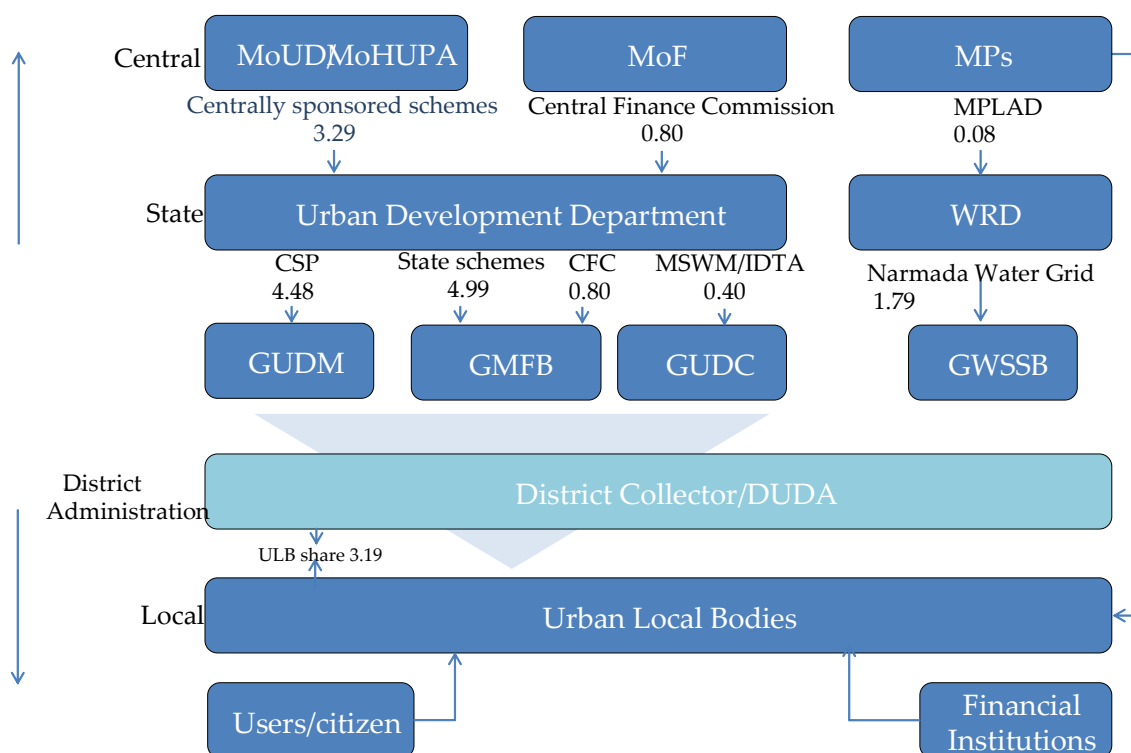
The GUDM is a state-level nodal agency (SLNA) for implementing the central government's JNNURM and Urban Infrastructure Development Scheme for Small and Medium Towns programmes and manages about 29 per cent of Urban Development Department (UDD) funds going to ULBs. In addition, it also provides technical and financial

assistance to programme ULBs, facilitates capacity building as well as information, communication and entertainment; assists in project appraisal and develops financial sanctions; manages grants and revolving funds and fund release; monitors project implementation and reforms; and undertakes submission of progress reports to the Government of India (GoI). The GMFB handles approx 37 per cent of UDD funds in its role as a nodal agency for routing all Plan and non-Plan grants (of the central finance commission, or CFC, and state government) and all state schemes for specific sub-sectors. In addition to dealing with funding from international donor agencies such as the World Bank and the Asian Development Bank, the GUDC is also engaged in developing the new Township Policy and supporting ULBs in more innovative projects of energy audits and SWM.

In addition to these agencies, specific programmes for the poor are also implemented and monitored by the district administration, particularly the district collector and District Urban Development Agency (DUDA). They focus on progress in implementation of projects and schemes, and receive progress reports of central and state government funded programmes, thereby playing an important role in the regular monitoring and review of municipalities.

Figure 1: UWSS Fund Flows Arrangements,

2008–09 (in Rupees billion)



To ensure a regular flow of information and updates on fund flow, project implementation and to obtain ULB feedback, the district administration has introduced a system of monthly video conferencing. All municipalities participate in the review attended by state officials including the principal secretary, urban development, chief executive officer of the GUDM and the Director of Municipalities. The video conference serves as a review and problem solving meeting

## Positive UWSS Finance with State Support

In recent years, the UWSS sector in Gujarat has seen a substantial rise in investment. Data suggests that the total estimated UWSS finance in FY 2010–11 was INR 23 billion. This represents a three-fold increase at current prices from the INR 5 billion investment level during

FY 2005–06. UWSS finance in India is from three main sources:

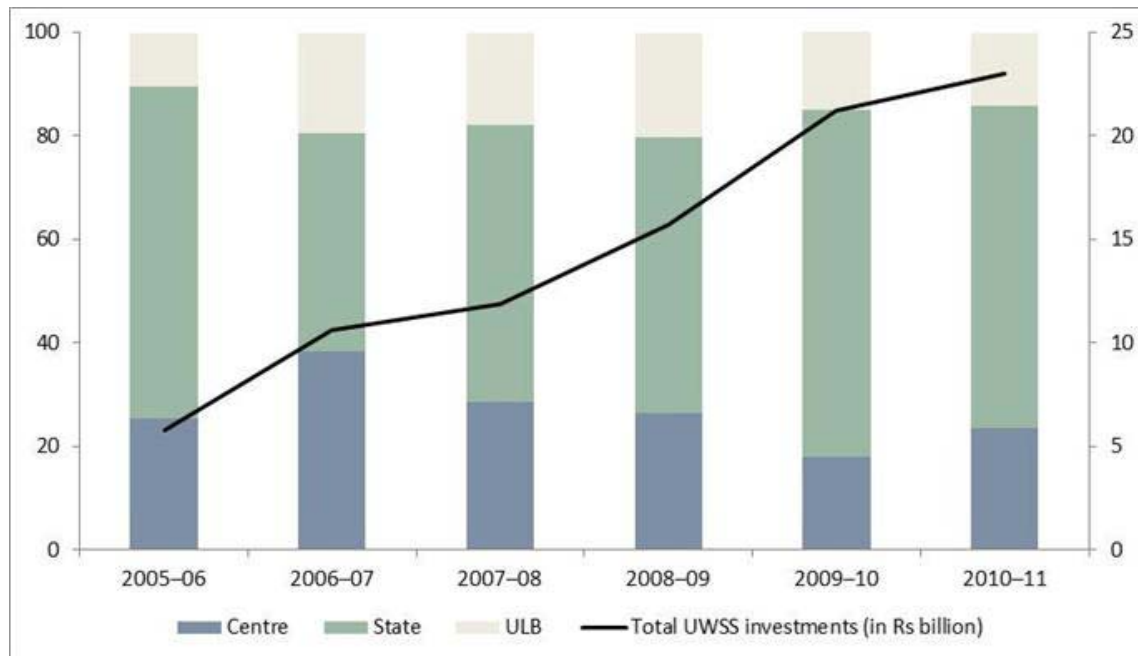
- **Central government:** CFC grants, centrally sponsored schemes and externally funded programmes.
- **State government:** Transfers and grants-in-aid, UDD schemes, the state’s contribution to centrally sponsored schemes.
- **ULB:** Own finances to meet their share in state and centrally funded schemes mobilised through internal surplus and/or borrowing.

Of these sources, state government funds have been the dominant source of UWSS finance in the last five years ((Figure 2). State funds accounted for 57 per cent of total investments, while central and ULB governments’ share stood at 27 and 16 per cent, respectively.

The growing investment in the UWSS sector is not surprising given the increased priority for

urban development at the state level.

**Figure 2: Share of UWSS Finance**

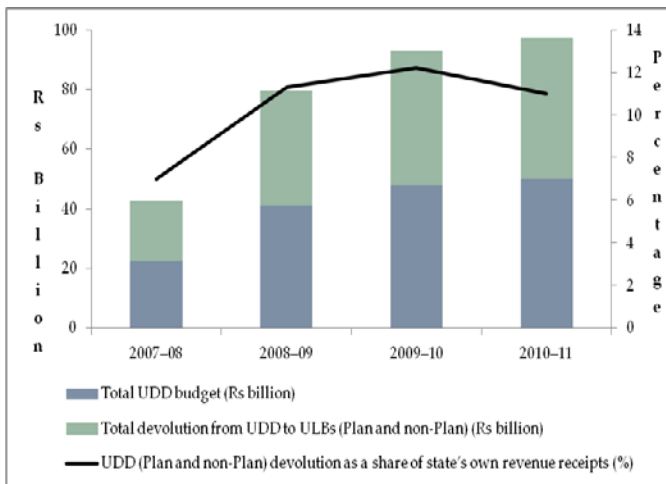


*Source: State budgets, Department of Finance (DoF), Government of Gujarat, state budgets, 2005-09; DoF, GoG, revised estimates 2009-10 and DoF, GoG, budget estimates 2010-11; Gujarat Water Supply and Sewerage Board GWSSB (2010).*

The high volume of state government funding assistance to the UWSS sector brings to the forefront two notable facts: sector financing and decentralisation in the state. First, there appears to be a positive correlation between the size of the state budget and the allocations made towards the urban development sector. Second, the increased budgeted allocations for the urban sector have also translated into greater devolution of funds to the ULBs. Of the INR 494 billion state budget (average of FY 2005-06 to FY 2010-11), the share of the UDD was INR 30.5 billion (Figure 3). This constitutes a y-o-y average of 5.7 per cent of the state budget. UWSS allocations essentially flow from both urban infrastructure and housing programmes.

The rise to INR 23 billion has accrued from the above-mentioned sources and also from the state's Water Resources Department, which funds investment for bulk water supply. Further, it is estimated that of the UDD plan funds, 56 per cent of funds are used for UWSS. These figures clearly indicate the priority accorded to the UWSS sector through state funding in Gujarat. In addition, it is estimated that of the UDD plan funds, 56 per cent of funds are used for UWSS. These figures clearly indicate the priority accorded to UWSS sector through state funding in Gujarat.

**Figure 3: UDD Devolution**



## Consolidation of Urban Sector Programmes

The momentum gathered in Gujarat's urban sector has its underpinnings in the various central and state level urban sector development programmes launched in recent years.

At the state level, 2005 marked the beginning of a dedicated effort by the Government of Gujarat (GoG) to develop urban infrastructure. The year, declared as *Urban Year* by the GoG, saw the launch of programmes directed at drawing 'a comprehensive and holistic urban governance vision'. This also coincided with the Government of India's (GoI) JNNURM. Four major cities of Gujarat received development assistance under the JNNURM and the state emerged as one of the leading states in terms of formulation and implementation of JNNURM projects.

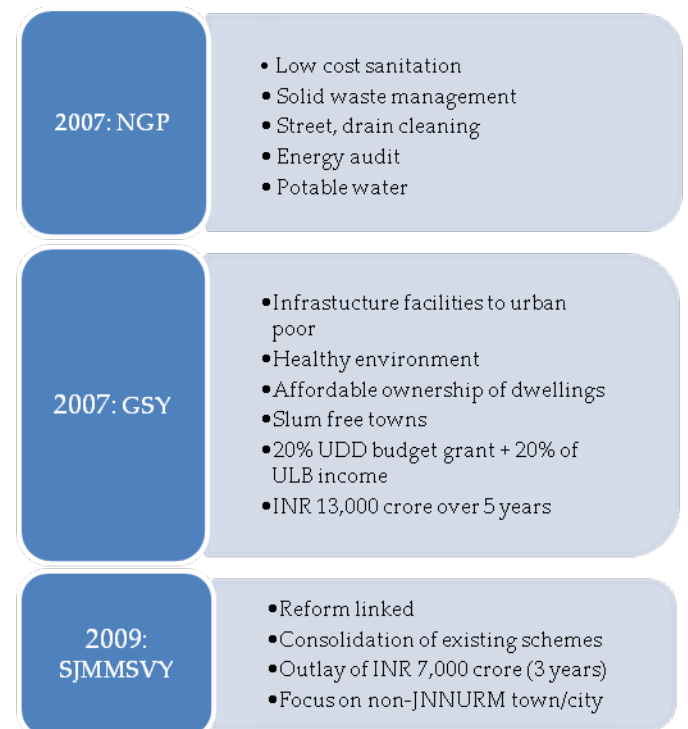
From subsequent years, that is, 2007 onwards, the GoG shifted its focus to consolidation of various central and state urban development programmes. This is a step in the right direction since it would help avoid programme overlap and reduce fragmentation of fund flows. In this

context, three such consolidation programmes have been launched by the GoG:

- 2007: Nirmal Gujarat Programme (NGP) and Garib Samruddhi Yojana (GSY).
- 2009: Swarna Jayanti Mukhya Mantri Shaheri Vikas Yojana (SJMMSVY).

Through the NGP, the GoG focuses on improvement of the urban environment; through the GSY, the focus is on ensuring an inclusive development process that benefits the poor. In its most recent initiative through the SJMMSVY, GoG the put explicit focus on administrative and governance reforms with the agenda of sustaining urban sector investments.

**Figure 4: GoG's Urban Development Programme Highlights**



Note: 1 crore = 10,000,000.

While the state has taken significant steps to focus on different urban development issues and also consolidate development programmes, it needs to put additional efforts to ensure better



links between investment and service delivery performance.

## Fund Devolution and Allocation Principles

Devolution of adequate funds to the UWSS sector does not necessarily translate into efficient service delivery by the ULBs. In a scenario where nearly 80 per cent of the capital funding of UWSS services is by state and national governments, the funding mechanism/process influences the ULB's ability to provide services.

This is especially true when urban sector funding in India takes place through a large number of grants and schemes, each with different criteria for devolution or allocation to different ULBs.<sup>6</sup> To avail of these grants, in most cases, ULBs need to prepare project proposals and obtain necessary approvals from the lending authorities.

**Table 1: Use of Devolved Funds**

Type of use	Total funding FY 2009–10 (% to total UDD plan funds)
Fully untied	0.0 (0.0%)
Partially untied	19.1 (18.5%)
Sector specific (UWSS)	3.7 (15.7%)
Sector specific (other sectors)	0.6 (2.8%)
<b>Total</b>	<b>23.4 (100%)</b>

<sup>6</sup> The transfers include central grants and schemes, sharing of taxes.

In this context, five aspects of decentralisation have been assessed to indicate the extent of efficiency with which ULBs are able to access and utilise the funds devolved to them.

### *Predictability in funding*

For the ULBs to be able to undertake effective medium term planning, it is imperative that they be aware of the quantum of resources available to them at any point of time. At present, only 21 per cent of plan funds devolved to the ULBs are of a predictable nature. The remaining 79 per cent are subject to approval of project proposals submitted by the ULBs. The actual fund transfer is dependent on technical approval of the project and the progress achieved in implementation. Even when formula-based allocations are made, ULBs are required to submit project proposals.

### *Local autonomy and capacity in the use of funds*

Local autonomy in the use of devolved funds is determined based on the extent to which ULBs exercise control over deciding their use across different purposes and sectors. In this sense, only the non-plan grants for octroi compensation<sup>7</sup> are untied. These account for 42 per cent of the total allocation to ULBs and can be used for any purpose. All other grants and schemes represent tied funding. Several of these grants are meant for basic infrastructure, and ULBs are to use them as specified.

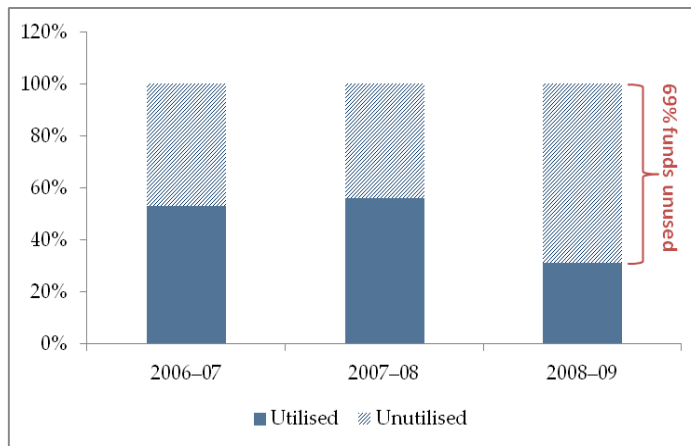
It is estimated that between FY 2005–06 and FY 2010–11, of the total UDD plan funds, only 20.5 per cent was disbursed on a formula basis. The

<sup>7</sup> Octroi compensation is linked to past octroi revenues. Currently no system of automatic increase in these revenues is planned. Recent reports suggest that actual disbursement of octroi compensation has not been adequate or timely.

remaining disbursement was linked to development of specific infrastructure.

During FY 2009–10, 16 per cent of the tied funds were specifically for UWSS sector and only 3 per cent for other sectors – clearly reflecting the priority being accorded to UWSS within urban development.

**Figure 5: Extent of Fund Utilisation**



Access to plan funds is contingent upon preparation of project proposals<sup>8</sup> by the ULBs. ULBs need to compete for these funds since grants are allocated to the ‘first off the block’. Studies suggest that only the larger municipal corporations with access to technical resources are able to develop sound technical and financial proposals. In comparison, the smaller ULBs lack the requisite know-how to prepare such project proposals.

In sharp contrast to the quantum of funds devolved to ULBs is the extent of fund utilisation by them. Use of the grants devolved to ULBs call for considerable capacity at the ULB level. The lack of such capacity is reflected in the low levels of fund utilisation by the ULBs (Figure 5).

This issue of underutilisation stems from constraints of human capacity at the ULB level.

<sup>8</sup> These project proposals may include City Development Plans and or Detailed Project Reports.

This further results in smaller ULBs being unable to address procedural requirements to apply for funds. Also, some of the grants often require matching funds which these ULBs are unable to invest. The problem of underutilisation may also get magnified on account of inefficiencies that may exist in the actual transfer process. Grants are often transferred to ULBs in the last quarter of the financial year, making it difficult for the ULBs to utilise them in the same year.

For instance, state government funds routed through the GMFB to ULBs indicate that the range of actual transfers varied from 218 to 77 per cent of the budget allocation.

### *Reform-linked funding*

In its attempt to tackle institutional and financial issues hindering urban development, the GoI in 2005 through its JNNURM scheme, introduced the feature of reform-linked funding. In line with this, the national government sought reform commitments from the state and the local governments to avail funding. To avail funds under JNNURM, state and local governments had to sign a Memorandum of Agreement to undertake specific reforms over a seven-year period. In doing so, the GoI has linked almost 93 per cent of its programme grants to reform implementation. The GoG also followed suit and introduced a similar feature under its SJMMSVY programme.

However, this innovative approach has not translated into effective implementation of reforms by the state. Gujarat’s inability to ensure full cost recovery of urban services and collection of property taxes is one such case. Even in instances where cities have registered

high cost recovery, this has been achieved through ad hoc increase in tax/user charges, rather than a systematic reduction in inefficiencies such as water losses, illegal connections and improvement of collection efficiency. At present, limited efforts have been made to monitor the status and quality of reform implementation.

### *Earmarking funds for the poor*

An important urban development agenda is the inclusion of the poor strata in the urban growth process. Assessment of fund flow patterns and scheme based interventions indicate that while there is an apparent increase in funds being allocated by the centre and state governments, additional interventions are required to ensure improved access to basic services.

In recent years, alongside increase in the earmarked funding for the poor, efforts are also being made at consolidation of different schemes. While such a consolidation may be good, it also indicates a move away from provision of basic services<sup>9</sup> to provision of housing. Two schemes under JNNURM, that is, Basic Services for Urban Poor (BSUP) and Integrated Housing and Slum Development Programmes (IHSDP), suggest a shift to provision of housing instead of ensuring universal access to house-level basic services. Trend in increased allocation to the poor indicates that there is likely to be sufficient funds to provide universal access to basic services; however, the same cannot be said of provision of housing to all.

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<sup>9</sup> Provision of basic services was the focus of programmes such as Environment Improvement in Urban Slums (EIUS), Urban Basic Services for Poor (UBSP), National Slum Development Programme (NSDP), and Urban Low Cost Sanitation (ULCS).

The centre's efforts have also been replicated at the state level with the GoG launching two consolidated programmes focused on the poor. The first is Shaheri Garib Samruddhi Yojana (SGSY), and the second was Nirmal Gujarat Sanitation Programme (NGSP). Limited funding constrained the effective implementation of SGSY. However, the NGSP has facilitated an increase in access to individual toilets. While this is a positive development, it is to be noted that most slums continue to lack proper sewerage systems or septic tanks. The prevailing subsidy rules distort incentives, enabling the contractors to construct toilets despite lack of access to sewerage system.

To further aid the efforts being taken to improve access to basic services for the urban poor, governments at the central and state level may consider institutionalising internal earmarking of funds in ULB budgets specifically for basic services for the poor. This requires reform in budgeting and accounting systems, and setting targets for expenditure incurred on delivery of services to the poor. The Ministry of Housing and Urban Poverty Alleviation (MoHUPA) has recommended a norm of 25 per cent of municipal budget to be set aside for the urban poor.<sup>10</sup>

In response, the GoG has adopted a policy that requires ULBs to earmark 20 per cent of grants from the state UDD budget for urban poor. Assessment of UDD plan budget for FY 2009–10 indicates that 16 per cent of the total funds were earmarked for the poor through various programmes. However, the state is yet to create the 'Basic Services for Urban Poor Fund' as was mandated under JNNURM reforms. Also, the budget documents do not indicate a separate budget head to record spending on the poor. A

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<sup>10</sup> Based on NIUA (2010), p 68–70.

few ULBs, including the Ahmedabad Municipal Corporation (AMC), indicate direct and indirect allocations being made for the weaker sections.

### *Horizontal equity between municipal corporations and municipalities*

In terms of distribution of central and state funds among ULBs there exist a few disparities. Municipal corporations have been recipients of over 85 per cent of the centre's devolution to the state. Between FY 2005–06 and FY 2009–10, municipal corporations received nearly three-fourths of the total UWSS finance, though their share in the state's urban population is only 58 per cent.<sup>11</sup> However, Gujarat has attempted to correct this disparity by increasing the share of municipalities to over 65 per cent in recent years.

As indicated earlier, inadequate capacity at the level of municipalities hinders their ability to access funds. However, the GoG has attempted to address this issue through its SJMMSVY programme where it has identified a panel of technical consultants who would lend support to municipalities in their efforts to develop City Development Plans (CDP) and Detailed Project Reports (DPR). In a departure from the earlier practices it is, however, important to ensure that these technical consultants help ULBs shift their focus towards improving service delivery and efficiency instead of only infrastructure creation.

## **Sustainability and Local Absorption Capacity**

For the decentralisation process to be successful, it is essential that functional and fiscal decentralisation be well aligned. Funding through local revenues and from IGFT should be sufficient to meet all the obligatory functions

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<sup>11</sup> As per Census 2001.

of the ULB. In absence of this, service delivery would be distorted and would lead to issues in sustainability of services.

An assessment of UWSS finance in Gujarat presents a conflicting picture of high investment levels with inadequate sustainability levels. This scenario is not unique to Gujarat but is common to several large scale infrastructure development investment programmes under progress in the country.

A review of Gujarat's UWSS finance indicates that the current investment trend, if continued, would be sufficient to meet the government's immediate sector targets. For instance, the GoG has laid down a target of providing at least 100 lpcd water supply and also ensuring access to safe toilet facility for all its citizens. Vis-à-vis the current annual investment level of 23 billion in the sector, a total 120 billion<sup>12</sup> would be required to achieve the set target. With current investment trends, it may be safe to estimate that within five years, the state government would be able to meet these targets. However, existing issues in the sector cast a doubt on the long term sustainability of these investments.

### *O&M expenditures and recovery of O&M costs*

Unlike capital investments, funding of O&M in the state has been inadequate when compared with norm-based estimates of O&M expenditure.<sup>13</sup> This is evident when the per capita actual expenditure incurred by ULBs on O&M of water supply services is assessed.

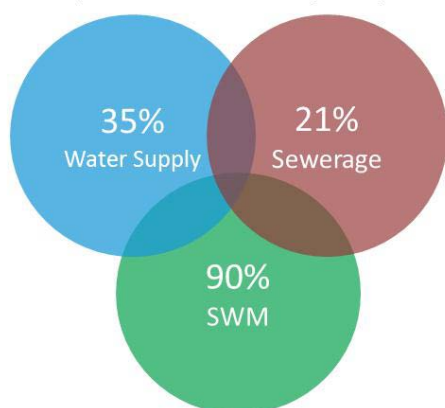
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<sup>12</sup> Based on bloc cost norms derived from detailed project reports of UWSS approved by the GoG.

<sup>13</sup> Adequacy of O&M expenditures has been assessed using the norms suggested by a recent report of the High Powered Executive Committee, Ahluwalia 2010.

**Figure 6: Pattern of O&M Expenditure**

O&M expenditure levels of Municipal Corporations



For FY 2008–09, municipal corporations in Gujarat spent only INR 207 and INR 71 per capita on O&M of water supply and sewerage services, respectively, which represents only 35 and 20 per cent of the required levels. Similar gaps are also noticed in the funding patterns of the smaller municipalities, with expenditure levels as low as 14 to 45 per cent of the requirements. Low levels of O&M expenditure is indicative of the fact that ULBs in the state have been deferring required infrastructure maintenance. This not only impacts the quality of UWSS services, but also results in the need to raise future investment requirements for infrastructure upgradation.

**Table 2: Extent of O&M Recovery**

% Recovery of O&M expenses (from local taxes & charges)	Municipal corporations	Municipalities
Water supply	64.2	59.8
Wastewater	49.2	51.5
SWM	28.4	22.6
Wastewater & SWM	37.8	29.3
Combined UWSS services	50.6	34.1

Another related area of concern is the low internal revenue base of the ULBs. The share of municipal own income to total income is only 35 per cent for municipal corporations and 42 per cent for municipalities.<sup>14</sup> Current revenues from taxes and charges are inadequate to even sustain the insufficient O&M expenditure levels. On an average, the recovery levels are marginally better for the municipal corporations when compared to the municipalities.

However, on the whole, the recovery levels are low despite it being a mandatory reform under the JNNURM, and had been agreed to by beneficiary ULBs.

To address this issue, the GoG has introduced cost recovery for UWSS services as a major reform area – through the SJMMYSVY programme. In a 2010 notification, the GoG has also instructed all municipalities to fix charges for special water tax above a specified rate.

In absence of water metering services in Gujarat, revenue generation from local services is done primarily through local taxes and fixed charges.

<sup>14</sup> Based on assessment of municipal finances in Gujarat for FY 2005–06 to FY 2008–09.

Most ULBs use a general water tax levied on all properties along with property tax, or a special water tax levied only on those properties that have water connection. Water tax is levied as a fixed charge and collected along with property tax. Data suggests variation across ULBs with about 30 per cent levying only general water tax, another 27 per cent levying only a special water tax and 44 per cent levying both taxes.

Though the GoG has mandated a rate hike, it also needs to focus on other related aspects of cost recovery such as reduction in inefficiencies resulting from illegal connections, low coverage levels, low collection efficiency, physical water losses due to leakages and unduly high electricity consumption due to inappropriate pumping machinery and design of distribution network. Focus on these aspects would substantially reduce the need for an O&M

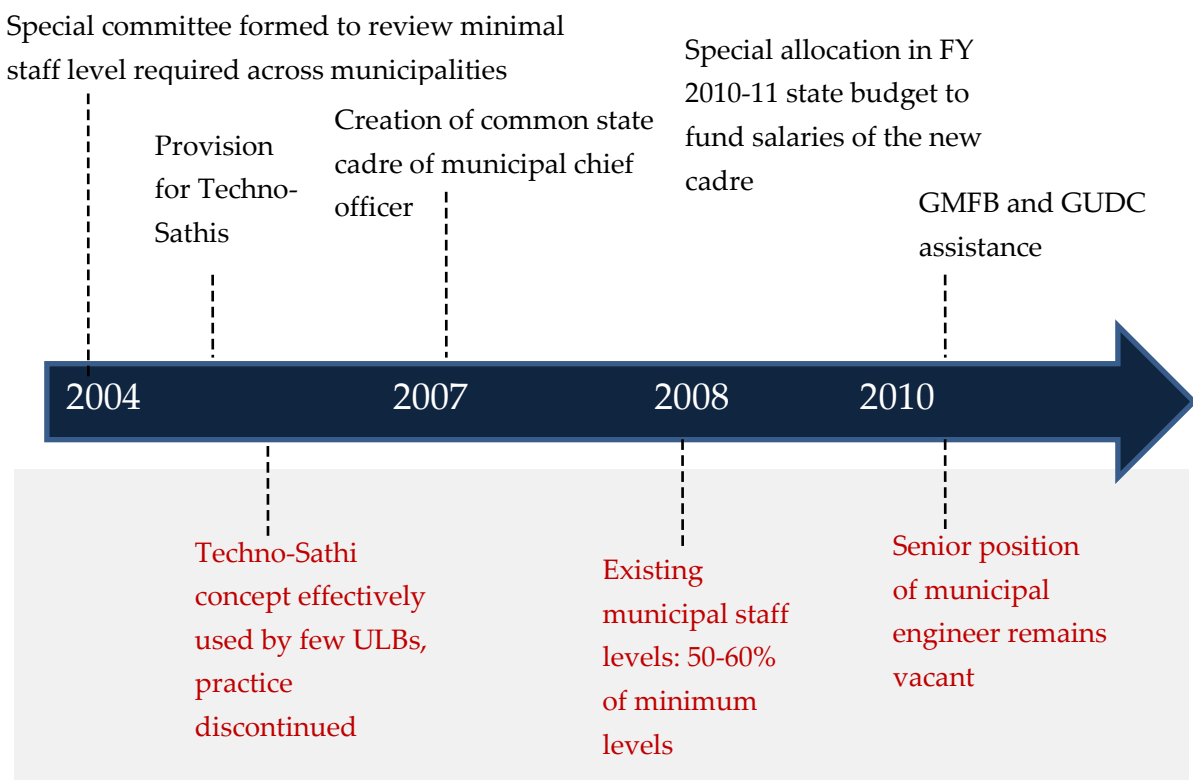
service rate hike.

### *ULB's human resource capacity*

As was indicated earlier, a key constraint in sustainability of ULB services is their inadequate human resource capacity. ULBs in Gujarat suffer from the dual problem of understaffing and of inadequate technical know-how among existing employees. This situation persists despite several interventions made by the GoG from time to time. A 2008–09 survey indicates that municipalities on an average have only 50 to 60 per cent of the sanctioned staff, a large portion of who are non-technical, often temporary or daily wage workers. This is despite a minimum staffing level recommendation made by the GoG in 2004.

In its continued efforts to address the problem, the GoG had made a provision for 'Techno-

**Table 3: Timeline of Interventions Made by GoG to Improve ULB Human Resource Capacity**



Sathis', trainee engineers who were appointed to support municipal engineers. While this concept was used effectively by some ULBs, additional details are not available and the practice has now been discontinued.

In 2007 the GoG created three common state cadres for a municipal accounts officer, a municipal health officer and a municipal engineer, over and above the existing state cadre of municipal chief officer.

While ULBs are supposed to mobilise salaries for this staff from their own budgets, considering the weak financial conditions and limited income sources of D-Class municipalities, the GoG has decided to create a special state cadre comprising chief officers, municipal accounts officers, health officers and engineers. The GoG also made special allocations by increasing its share for salary and wages of these four state cadres from 75 per cent to 90 per cent and has made a special allocation in the 2010–11 Budget. However, for many ULBs, the senior position of a municipal engineer remains vacant, which adversely affects service delivery.

In subsequent efforts, the GoG has empanelled private consultants to assist the smaller ULBs in developing projects and provide project management support in implementation. The recruitment is done at the state government level and they are also paid by the state agencies. It may be worth exploring the approach taken under the Kerala rural water supply and sanitation programme: the support organisations that work with the gram panchayat enter into a tripartite memorandum of understanding and the payment of fees to the former is done by the latter. This gives the gram panchayats a greater role and helps build their capacity.

Further support has also been extended by the GUDC and GMFB in assisting ULBs with energy efficient and IT development projects, respectively.

### *Structural reforms for performance incentives to staff*

An important intervention required to facilitate improved service delivery is provision of performance incentives to ULB staff. Recognising its significance, the JNNURM has also attempted to introduce this through its administrative reforms. However, streamlining this reform into mainstream functioning of ULBs is a challenging task given institutional and structural issues.

The GoG may take a cue from global best practices in the UWSS sector where governments have separated the operation function from that of policy and regulatory functions. Several countries have achieved this through creation of autonomous water utilities which give operational independence to staff. Several developed and developing countries have adopted this model for their water supply functions. While such changes in basic organisational structure of service delivery suggest major departures and may be difficult to implement,<sup>15</sup> it would be worth exploring mechanisms that help ULBs to mimic some of the principles from autonomous utilities as has been done successfully by the National Water and Sewerage Corporation of Uganda.<sup>16</sup> For this, it would also be useful to refer to some of the administrative and structural reforms under the JNNURM which have not been addressed in

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<sup>15</sup> For example, they would require thorny issues of asset pricing and transfer, need autonomy in staff recruitment and procurement to be really effective and, most importantly, will require a good and independent regulator. While not impossible, these are difficult issues to address.

<sup>16</sup> See, for example, Mugisha, Berg and Muhairwe (2005).

Gujarat.<sup>17</sup> Administrative reforms – particularly those related to rewarding good performance, strengthening internal processes and improving citizen interface – are still required to be strengthened. ULBs are also required to use standardised service level benchmarks (SSLB) to periodically measure and report on their performance. Ideally these should be also linked to staff performance assessments. For this, it would be useful to look at a recent move to introduce staff performance assessment to the Results Framework Documents for many GoI ministries.<sup>18</sup>

Structural reforms under the JNNURM address institutional structures at both state and local levels. However, these do not address the issues of operational autonomy for water supply services and its separation from policy and regulatory functions as evident from successful global experiences.

## Measures to Strengthen Sector Finance Arrangements

Assessment of UWSS finance of Gujarat has brought to the forefront key trends pertaining to the sector. Over the past half-a-decade, both the GoI and GoG have accorded high priority to urban infrastructure, and to urban water supply and sanitation in particular. Continued economic growth and related rise in public resources have made it possible for both national and state governments to significantly increase funds for urban development. It is likely that funds available to local governments for investments in urban water supply and sanitation systems are likely to further increase over the next five years. While this will help address infrastructure constraints, several

additional concerns need to be addressed for their effective absorption and efficient service delivery.

**Figure 7: Fiscal Consolidation**

<b>Fiscal consolidation &amp; service delivery focus</b>	<ul style="list-style-type: none"> <li>Consolidation of schemes &amp; fiscal transfers</li> <li>Increased focus on service delivery improvement</li> </ul>
<b>Increase in predictable transfers</b>	<ul style="list-style-type: none"> <li>Better medium term resource planning</li> </ul>
<b>Technical support to smaller municipalities</b>	<ul style="list-style-type: none"> <li>Project development &amp; implementation assistance</li> <li>Engaging local service providers</li> <li>Improvement to routine services</li> </ul>
<b>Effective implementation of earmarking for the poor</b>	<ul style="list-style-type: none"> <li>Improved tracking &amp; monitoring of funds</li> <li>Assessment of effectiveness of services for the poor</li> </ul>
<b>Improving capacity for sustainable O&amp;M</b>	<ul style="list-style-type: none"> <li>Improvement in human resource capacity</li> <li>Introduction of asset management practices, water &amp; energy audits</li> <li>Operational autonomy.</li> </ul>
<b>Addressing data issues for sector finance</b>	<ul style="list-style-type: none"> <li>Improved tracking and reporting of funds</li> </ul>

### *Need for fiscal consolidation and service delivery orientation in sector programmes*

The GoG has, over the past five years, introduced the notion of umbrella programmes focusing on different aspects such as: water and sanitation under Nirmal Gujarat, focus on the poor under the Garib Samruddhi Yojana and focus on financial and governance reforms under the SJMMSVY. However, it would be prudent to consolidate schemes and fiscal transfers to be able to effectively plan and monitor progress and outcomes. Such consolidation will also make it easier for ULBs to develop city-wide sectoral plans, for instance, for water supply and sanitation. The current focus is on ‘infrastructure projects’, that is, creating new infrastructure rather than improving service delivery. A clearer focus on performance improvement in service delivery is needed in all ULBs.

<sup>17</sup> See chapters 8 and 9, NIUA (2010).

<sup>18</sup> Indian Express (2011), MoUD (2011) and MoHUPA (2011).



### *Need to increase predictability of transfers to ULBs*

At present, only 25 per cent of funds devolved to ULBs are predictable since they are based on a formula. An increase in the proportion of predictable resources for ULBs would provide a better idea of resource availability over the medium term to undertake more effective planning. This can be done by increasing their share in taxes as well as by making a longer and transparent commitment through the state schemes as, for example, has been done under the SJMMSVY for the model town component. The Third State Finance Commission for Gujarat which has been recently constituted will need to consider these aspects.<sup>19</sup>

### *Technical support to smaller municipalities*

Experience over the past decade suggests that the smaller ULBs are likely to face a significant constraint in effectively absorbing any additional investment funds. Efforts need to be directed towards increasing the local fund absorption levels. Dual assistance both for project development and for project implementation needs to be extended.

Such capacity building support and facilitation for project preparation will help to improve the design and implementation of projects. ULBs will also get effective results by choosing their own priorities across local services. Given the increasing focus on preparation and approval of large volume project proposals, it is imperative that, where relevant, state government provide technical assistance to ULBs to prepare CDPs and DPRs. However, ULBs also need more

sustained support for various specialist services such as business planning, city-wide service planning, strategic planning for improved cost recovery, asset management, etc. Small private sector enterprises in Gujarat need to be roped in to provide these services more effectively. In addition, support is also needed for improving routine services such as billing and collection, consumer grievance redressal and regularisation of illegal connections. This can be done through a market-based approach by tapping small service providers in the private sector or among non-governmental organisations. For this, however, government support would need to empanel service providers and help build their capacities for facilitating economies of scale through aggregation where needed.

### *Effective implementation of earmarking for the poor*

The GoG has made efforts to introduce schemes as well as norms for earmarking budget resources for the poor. However, a few issues need to be addressed. First, there is no mechanism in place to track actual allocations on a regular basis for different cities, an exception being Ahmedabad where it's reported in the budget. A better tracking and monitoring of allocations for the poor is needed. Even more importantly, it is essential to monitor and assess effectiveness of services for the poor. For example, while toilets are being built for the poor on a large scale in urban areas, there are problems due to absence of waste disposal arrangements, resulting in toilets not being used. Similarly, given the GoG's goal of universal coverage, there is a need to move beyond a few pilot projects to a city-wide approach. Implementation of such an approach will require adequate information on access of

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<sup>19</sup> In February 2011, the GoG announced setting up of the Third State Finance Commission under the Chairmanship of Mr Bharat Gariwala. This is established as per the requirement under Article 243-1 of 73<sup>rd</sup> and 243-y of 74<sup>th</sup> Constitutional Amendment Act.

services for all slum households. It will also be useful to develop appropriate subsidy policies that are well targeted.

### *Improving capacity for sustainable O&M of new infrastructure*

A key constraint in delivery of WSS services by ULBs in Gujarat has been inadequate attention to the technical and financial aspects of O&M. The technical aspects are reflected in inadequate human resource capacity as well as a lack of detailed technical information of the infrastructure investments. ULBs are unaware of asset management practices. ULBs have no records of their assets, and have no rehabilitation or replacement plans in place. This makes it difficult to ensure effective and efficient operation and, especially, maintenance.

Regarding financing, the situation is equally critical with most ULBs unable to spend the required amount of funds on O&M of UWSS. Despite the low expenditure, they fail to ensure full recovery of O&M expenditures. It is also likely that low expenditures are due to poor maintenance, resulting in poor service levels. Such a practice also hides other inefficiencies such as high (and often unknown) level of physical water losses and inefficiency in use of Project, it will be possible to carry out such assessments.

electricity which is generally more than 50 per cent of total expenditure. Low recovery is not only due to inadequate tariffs but equally due to billing and collection inefficiencies, and an unknown (and probably high) level of illegal users. Addressing these issues will require water and energy audits. Some bold steps are also needed to ensure that there is operational autonomy for service delivery for ULBs for staff recruitment, and to provide incentives for staff to work towards improved performance.

### *Addressing data issues for sector finance*

At present, despite the priority accorded to UWSS, it is not easy to track UWSS allocation and expenditure. It is important to improve tracking and reporting of funds. Alternatively, if sector programmes are consolidated in the budget as suggested in the discussion above, it will be easier to track this expenditure. Second, it is important to identify outputs, intermediate results and outcomes for the sector. This is very difficult at present, as information on outcomes is collected neither from ULBs nor from the consumers. When such information becomes available, as planned under the ongoing PAS

## The Performance Assessment System (PAS) Project

The Performance Assessment System (PAS) Project supports development of appropriate tools and methods to measure, monitor and improve delivery of urban water and sanitation services in the states of Gujarat and Maharashtra. The PAS Project includes three major components of performance measurement, performance monitoring and performance improvement. It covers all the 400+ urban local governments in Gujarat and Maharashtra.

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## PAS Project

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