



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

CEPT University

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# FINANCING URBAN WATER SUPPLY AND SANITATION IN MAHARASHTRA

## Introduction

*At 27.8 per cent, India's rising urban population has been the focal point of several government funded development programmes over the last decade. Programmes have largely attempted to address the dual problem of inadequate access to, and low quality of, basic infrastructure services in urban areas. 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 trend is also visible in the Indian state of Maharashtra, where in 2005 an estimated 99 per cent of all households had access to piped water supply and where UWSS sector investments registered an unprecedented increase to INR 35 billion<sup>1</sup> in FY 2006–07, from the INR 3 billion level of the previous year. However, the same cannot be said of sectors such as sanitation and urban poverty, where the state has underperformed in comparison to the national average. The state government exhibits a high level of dependence on the centre for urban sector funds. Attempts at resource mobilisation by the state and local governments have been far and between. Several fiscal and non-fiscal interventions are required to ensure that the urban development programmes meet their target objectives.*

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 the Jawaharlal Nehru National Urban Renewal Mission, JNNURM, are for the UWSS sector).<sup>2</sup> While the extent of success of these programmes in meeting their objectives differs across states, progress made by Maharashtra has been of a mixed nature, with a few sectors progressing and others underperforming. Within the UWSS sector, provision of water supply services has improved significantly. Between 2002 and 2007, the percentage of population with access to improved sources of drinking water supply has increased to 98 per cent, an increase of nearly 25 per cent.<sup>3</sup> The improved performance by this sector is also matched by high investments made into the sector, especially by the central government. The high priority accorded to the urban sector by the state government is also reflected in the rising contributions by its departments.

However, Maharashtra has a long way to go in its aim of developing the state's urban sector. Despite being one of the richest Indian states, the population of urban poor in the state at 34 per cent in 2004-05 was higher than the country's average. Sanitation services in the state also require concerted improvement efforts. Though investments into the UWSS sector have been rising, this trend is driven

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<sup>1</sup> 1 crore = 10,000,000.

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<sup>2</sup> MoUD survey of JNNURM implementation status, 2009.

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

mostly on account of central government intervention and less by the state government. Technical and financial capacities vary significantly between the state's 243 urban local bodies (ULBs). While the bigger ULBs fare better, fund underutilisation levels and operation and maintenance (O&M) spending by smaller ULBs is much less. Though the state has made some important interventions in the recent years, further efforts need to be put in order to ensure a balanced and comprehensive development of the sector.

## Recent Urbanisation and UWSS Trends

With an urban population of 50 million in 2011, Maharashtra is India's most urbanised state. Between the years 2001 and 2011, the state registered a decadal growth rate of 23.67 per cent. It is projected that by 2026, the concentration of urban population in Maharashtra is expected to cross 60 per cent levels, significantly higher than the national projected average of 38 per cent.<sup>4</sup> Most of Maharashtra's urban population resides in its cities, also referred to as municipal corporations. It is estimated that in 2001, this concentration was at 69 per cent. The population growth patterns within the state indicate the growing importance of larger cities. For instance, in 2009 it was estimated that nearly 71.3 per cent of the state's urbanised population resided in its municipal corporations. In contrast, for the same year only 29 per cent resided in the smaller ULBs classified as municipalities.

The high urbanisation level is also matched by the state's rising economic growth rate. Maharashtra is India's richest state and

contributed 15 per cent to the country's industrial output. Mumbai, India's richest city in terms of average household income, is also Maharashtra's capital city.

Unfortunately, the high urbanisation and economic growth levels of the state have not translated into reduced poverty levels. With 32 per cent (in 2004–05) of its urban population categorised as poor, poverty levels in Maharashtra are higher than the national average of 28 per cent. However, a recent (2009) assessment undertaken by the Performance Assessment System (PAS) survey team, has estimated the state's urban poor population level to be approximately 27 per cent.

All of Maharashtra's urban poor reside in slums. At 19 per cent, the state has the highest share of slums in the country. When compared with other Indian states, Maharashtra's performance in tackling urban poverty during the last decade has been particularly poor.

With respect to provision of basic infrastructure such as water supply, sewerage, sanitation and solid waste management (SWM), data suggest that service levels in Maharashtra are comparable or in some cases better than those in other Indian states such as Andhra Pradesh, Karnataka Gujarat and Tamil Nadu. Information collected from multiple sources indicates that the state has been able to consistently improve water supply services over the years. As per the 2001 Census data, 91 per cent of the state's urban population had access to piped water supply. If information from the District Level Health Surveys (DLHS) is considered, then by 2007 the access level is estimated to be at 98 per cent for households, an increase of nearly 25 per cent over five years. The improvement in service delivery is also noted in the slums of the state. As per the

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<sup>4</sup> Projections made by Registrar General and Census Commissioner of India.

National Sample Survey Organisation (NSSO) survey, in 2002 access to improved sources of water supply in the slum was at 91 per cent, which improved to 94 per cent in 2004.

When it comes to sanitation facilities, data from multiple sources suggest that urban Maharashtra has underperformed in comparison with other states in India. In 2001, the Census reports that access to sanitation

## Institutional Arrangement for UWSS

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 ULBs. In addition to entrusting ULBs with increased authority and responsibility, the Amendment also brought about a change in the inter-government fiscal transfer (IGFT) mechanism of the state.

ULBs in Maharashtra are governed by four Acts/legislations: the Bombay Municipal Corporation Act, 1888; the City of Nagpur Corporation Act, 1948; the Bombay Provincial Municipal Corporations Act, 1949; and the Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965. These Acts evolved over time in response to felt needs; however, at present, there is growing recognition of the need to have greater uniformity. In 2009, there were 23 municipal corporations, 219 municipal councils of Class A, B and C and six Nagar Panchayats in the state.

This Amendment of 1992 made ULBs in Maharashtra responsible for provision of UWSS services. However, wide variations exist in the

facilities in the state was only 53 per cent, which is significantly lower than the then national average of 63 per cent. The situation in the slums is only marginally better, and calls for more intervention.

In terms of access to sewerage facilities, studies indicate that the situation is relatively better in Maharashtra. The same can also be said about SWM facilities in the state.

capacities of the ULBs, with the smaller ULBs lacking capacity to provide UWSS services on their own. Given this, UWSS arrangement in Maharashtra is a peculiar one where ULBs are provided with two choices:

- a. Building and operations of the entire UWSS services are managed by the ULBs for their respective jurisdiction.
- b. State agencies manage and operate the UWSS on behalf of the ULB, with the latter being billed for operating costs.

Option 'b' is the most common arrangement in Maharashtra.

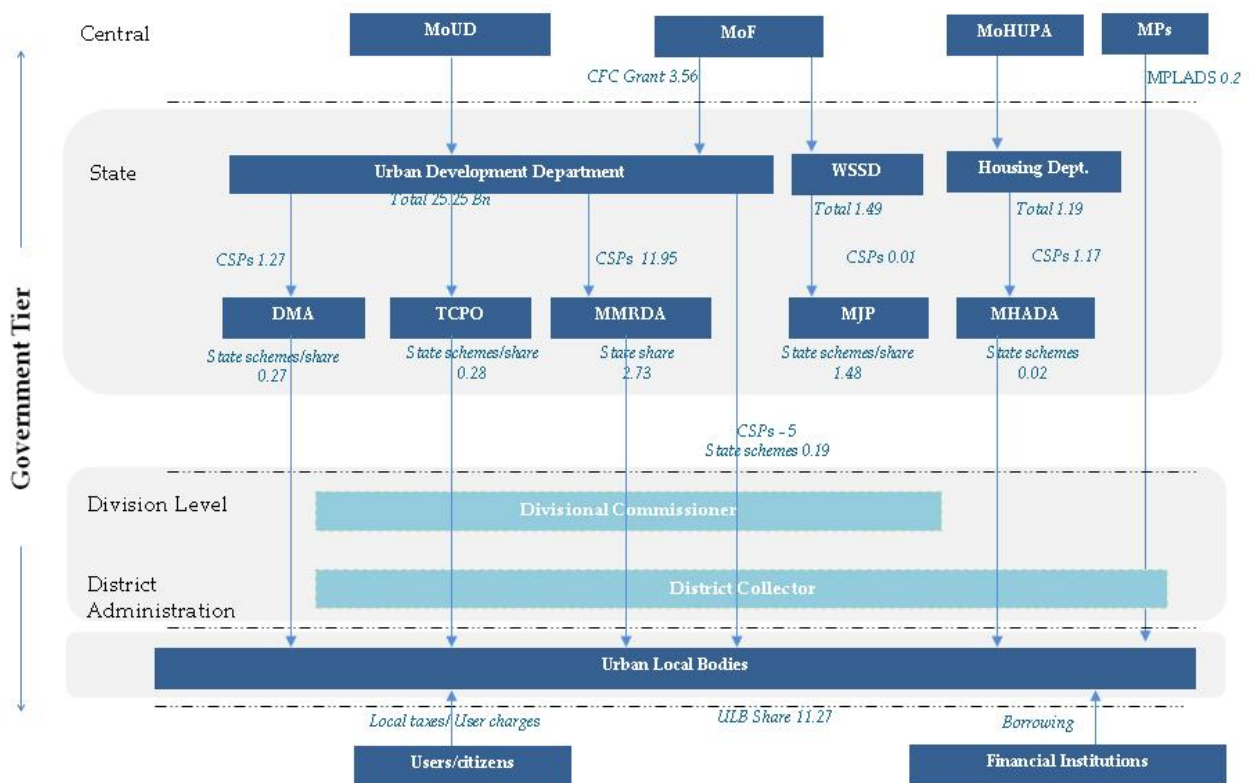
The major proportion of UWSS finance in Maharashtra is routed through two departments of the State Government – the Urban Development Department (UDD) and the Water Supply and Sanitation Department (WSSD). In addition, UWSS sector investments for the urban poor flow through the Housing Department of the Government of Maharashtra (GoM) as part of pro-poor housing and infrastructure programmes like Basic Services for Urban Poor (BSUP), Integrated Housing and Slum Development Programme, Rajiv Awas Yojana and other slum improvement/pro-poor housing programmes of the State. The Member of Parliament Local Area Development (MPLAD) fund, which can be used for UWSS, is the only exception, flowing directly from the

Government of India (GoI) through the District Collector's office to ULBs.

Of the various channels of UWSS fund flow in the State, UDD commands the largest share. Seventy percent of the total investments in UWSS are channelised through UDD. Fund flow through the WSSD (4.18 per cent) and Housing Department (3.34 per cent) is considerably lower in comparison. While about

86 per cent of the funds disbursed by UDD comprise central funds, 99 per cent of WSSD funds for UWSS comprise state grants and program funds. MPLAD funds of the Centre, though not very large from the overall sector perspective, are directly routed through the District Collectors, representing a different fund flow arrangement.

**Figure 1: Fund flow arrangements in Maharashtra (Numbers in INR billion)**



In addition, there are state level nodal agencies (SLNA) which channelise funds disbursed by the central government. The Mumbai Metropolitan Region Development Authority is the SLNA for implementation of the JNNURM while the Directorate of Municipalities (DMA) is the SLNA for the Urban Infrastructure Development Scheme for Small and Medium Towns (UIDSSMT), respectively, managing

about 58.17 per cent and 20.18 per cent of UDD fund transfers to ULBs annually. The Maharashtra Housing and Area Development Authority (MHADA) is the SLNA for centrally sponsored programmes for the poor including BSUP, Integrated Housing & Slum Development Programme (IHSDP) and Rajiv Awas Yojana (RAY), managing 76.65 per cent of fund transfers for UWSS for the poor. Fund flow

from the WSSD for UWSS programmes is routed through its parastatal agency, Maharashtra Jeevan Pradhikaran. An overview of fund flow arrangements in the state is represented in [Error! Reference source not found.](#).

## UWSS Finances Riding High on Central Government's Assistance

In recent years, the UWSS sector in Maharashtra has seen a substantial rise in investment. Data suggest that the total estimated UWSS finance in FY 2010–11 was INR 35 billion. This represents an 11-fold increase at current prices from the INR 3 billion investment level during FY 2005–06.

UWSS finance in India is from three main sources:

- **Central government:** Central Finance Commission (CFC) grants, centrally

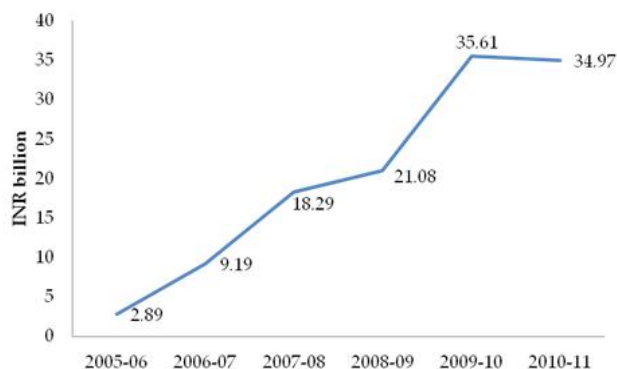
sponsored schemes and externally funded programmes.

- **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.

At present there are no externally aided UWSS projects in Maharashtra.

Of these sources, central government funds have been the dominant source of UWSS finance in the last six years (Figure 1). Central government funds accounted for 54 per cent of the total investments, while central and ULB governments' share stood at 27 and 19 per cent, respectively.

**Figure 2: Trends in UWSS finance**



As can be noted from Figure 2, between FY 2005–06 and FY 2007–08, UWSS funds recorded an unprecedented rise from INR 2.89 billion to INR 18.29 billion. This significant jump has been on account of funding assistance through the centre's JNNURM and UIDSSMT schemes.

State funding for the sector has largely been for state schemes like Maharashtra Sujal Nirmal

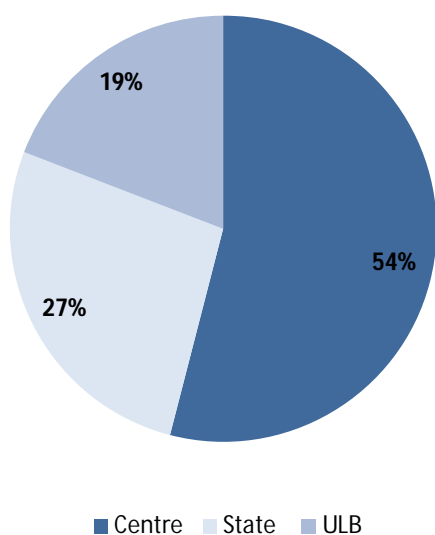
Abhiyan (MSNA) and Maharashtra Swarna Jayanti Nagarothan Maha Abhiyan (MSJNMA).

Of the total urban sector plan funding in Maharashtra, it is estimated that on an average 51 per cent has been allocated to the UWSS sector over the last three years. The growing funding to the UWSS sector is in line with increased priority being accorded to urban sector. An important feature of the decentralisation process in the country is requirement for increased devolution of funds from centre and state to the ULBs. The increased funding to the sector is inextricably linked to the fund devolution practice in the state. Over the past three years, a fairly large proportion of urban sector funds were devolved through various grants-in-aid and programs/schemes to ULBs, accounting for, on an average, 10.98 per cent of the state's own revenue receipts. This

affords a favourable comparison with other Indian states such as Gujarat,<sup>5</sup> Karnataka and Tamil Nadu, among which the two latter states have recommended devolution of about 10 per cent of state tax and non-tax revenue to ULBs.<sup>6</sup>

UWSS finance in the state is channelised through three departments: the UDD, the WSSD and the Housing Department. Over the past three years, the share of these departments in the total state budget has averaged at about 6 per cent.

**Figure 1: Source of UWSS funding in the state**



## Reform-oriented Urban Sector Programmes

Increased funding to the state's UWSS sector is aligned with its evolving policy focus. During the 1990s, the state government launched schemes which focused on issues of poverty.

<sup>5</sup> CEPT University (2011) estimates reveal a similar average of 10.4 per cent for urban sector devolution to Gujarat's own revenue receipts.

<sup>6</sup> Based on GOI (2010), Annex 10.2, which provides details of recommendations made by SFCs of different states.

These schemes continue to be implemented today. However, in recent years, the state government has also brought in initiatives which target urban sector issues. These initiatives have attempted to introduce reform linked or performance based funding for urban sector projects in the state.

First among these was the Sant Gadgebaba Nagari Swachhata Abhiyan, an incentive-linked scheme launched in 2002. This scheme was the first of its kind in India with its aim of motivating ULBs to bring about improvements in sanitation delivery through a rewards and incentives programme. The centre's JNNURM and UIDSSMT schemes launched in 2005, which covered seven cities and 86 towns in the state, took further the agenda of reform-linked funding in the state. More recently in 2008, the WSSD introduced another reform-linked funding scheme – the SNMA. The SNMA programme has two areas of focus, that is, reforms and water supply and sanitation schemes. Under this programme, a separate data collection and processing unit called Change Management Unit (CMU) has also been set up. Fund allocation decisions are initially based on the willingness of ULBs to undertake reforms and project preparation, and later, based on ULB performance with regard to implementation of reforms and WSS schemes.

Yet another reform-linked scheme launched by the state government is the MSJNMA.<sup>7</sup> This programme aims to provide adequate urban infrastructure including health, education facilities and aesthetic features as per government standards. It is mandatory for the

<sup>7</sup> GR no.NUR-2008/Pr.no-203/UD-33 dated 20th February, 2010, provides guidelines for implementation of the Nagarothan scheme, including the list of admissible sectors and Government of Maharashtra departments responsible for scheme implementation and their respective roles.



cities and towns selected under the programme to prepare City Development Plans (CDPs) with an investment plan for 20 years. It is also mandatory for eligible ULBs to implement the reform agenda defined in the government Resolution (GR) and enter into a Memorandum of Agreement (MoA) with the state government.

While the government is moving in the right direction by focusing on reforms through its schemes, a few aspects need to be taken into consideration. Studies indicate a few issues with schemes focused on urban poor issues:

- a. Significant fragmentation of schemes involving several departments.
- b. Disparate fund flow and reporting structures.

To improve efficiency, effectiveness and local sustainability of the investments, it is recommended that a concerted effort at consolidation of schemes is attempted.

## Fund Devolution and Allocation Principles

Devolution of adequate funds to the UWSS sector does not necessarily translate into efficient service delivery by ULBs. In a scenario where nearly 80 per cent of the capital funding of UWSS services is by central and the state 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>8</sup> However, it is observed that in recent years, central and state governments are increasingly tending to adopt reform-linked

funding along with requirements such as compulsory ULB contribution into project account before devolution, signing of MoA between state government and ULB for reform undertaking by the latter.

In general, three types of devolution/allocation criteria for funds are observed in the urban/UWSS sector in Maharashtra: (a) formula-based; (b) based on project proposals prepared by ULB; and (c) a combination of devolution formulae and project preparation undertaken by ULBs.

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 16 per cent of plan funds devolved to the ULBs are of a predictable nature. The remaining plan funds are determined on the basis of proposals prepared by the ULBs.

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<sup>8</sup> The transfers include central grants and schemes, sharing of taxes

**Table 1 : Current devolution mechanism**

	CFC grants	SFC grants (Octroi compensation)	Nagarothan scheme	Other Plan funds
Formula based	✓	✓		
ULB proposal based				✓
Formula + ULB proposal			✓	

It is noted that most ULBs in the state use only CFC grants for UWSS, while State Finance Commission (SFC) grants are mainly used to meet establishment expenditure. The current devolution mechanism for CFC and SFC grants is indicated in **Error! Reference source not found..** It may be noted from **Error! Reference source not found.** that devolution of the centre’s finance commission grants to ULBs is based on a formula determined by the state government. Similarly, the state government uses a formula-based approach to compensate ULBs for loss revenue on account of cancellation of Octroi. All other grants are based on approval of project proposals submitted by ULBs. Though some grants are formula based, assessment indicates time lags in disbursement of the amount due to the ULBs.

Also, a single agency or department alone may not be involved in providing approvals on ULB projects. For instance, technical approvals for road or building projects are provided by state government departments. Administrative approvals may come in from the ULB level

General Body or, as the case may be, additionally from District level collector.

Therefore, though some plan funds are predictable in nature, ULBs need to invest substantial time and resources to avail those grants.

### **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 the use of funds for different purposes and sectors. In Maharashtra, it is observed that nearly 72 per cent of non-plan SFC grants are of an untied nature. This gives ULBs the autonomy and freedom to use the funds in a manner they deem fit. Currently most ULBs use these funds to meet their establishment and salary expenditure. All other grant and scheme funds (Plan funds) represent tied funding, with different degrees of freedom of use by ULBs. **Error! Reference source not found.** indicates the conditions of use of grant and scheme funds which are tied in nature.

The partially tied funds which represent 47 per cent (INR 23.18 billion)<sup>9</sup> of Plan funds include funding from schemes such as the JNNURM, UIDSSMT, MPLADS, etc. Most of the UWSS funds for the state are funded through JNNURM projects. The 36 per cent fully tied funds indicated in the figure refer to funds disbursed to the UWSS sector or for urban poor projects.

Funds allocated to the sector become effective only when these are used efficiently by the ULBs. As per the 13<sup>th</sup> Finance Commission, average fund utilisation level in the state by

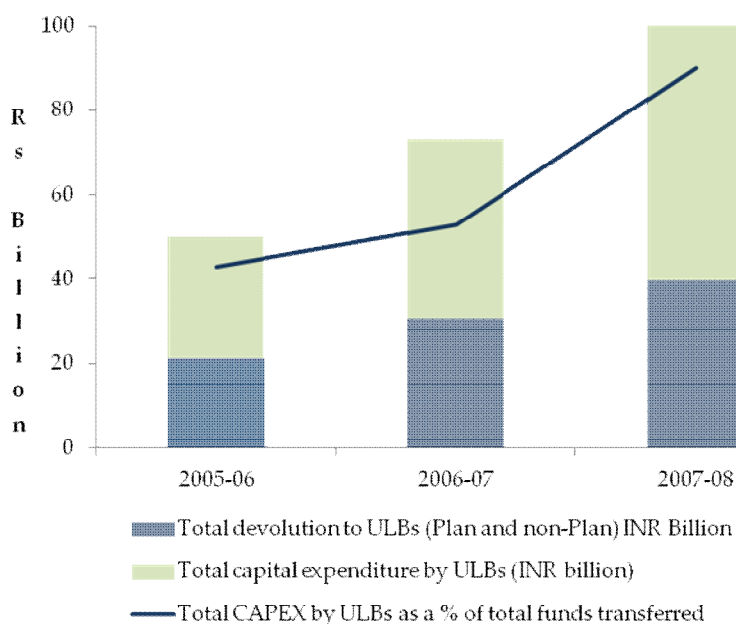
<sup>9</sup> For FY 2009–10.

municipalities for the period between 2005 and 2008 has been 45 per cent. The corresponding estimate for municipal corporations is 200 per cent. This vast variation in the extent of fund utilisation by different classes of ULBs points to the differences in fund absorption capacities of ULBs.

On an average, ULBs in Maharashtra have exhibited a good track record of fund utilisation, with capital expenditure exceeding transfers (refer **Error! Reference source not found.**). However, detailed assessment of fund utilisation level indicates that it is the smaller ULBs of the state which are unable to utilise funds devolved to them.

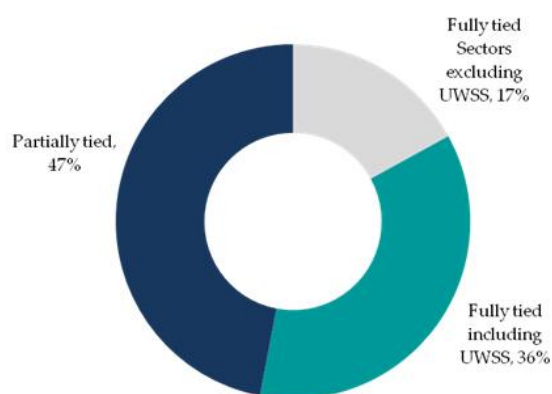
Devolution of tied funds is subject to approval of project proposals/CDPs/Detailed Project Reports (DPRs) submitted by ULBs. While municipal corporations may have the wherewithal to prepare required proposals, this is not the case with smaller ULBs. The GoM has recognised this anomaly and has created support mechanisms for project preparation through Maharashtra Urban Infrastructure Development Company (MUIINFRA).

**Figure 2: Capital expenditure pattern**



Another aspect which deters ULBs from being able to fully utilise funds devolved to them is their limited finances. In some schemes, access to funds is contingent upon a matching contribution by the ULB. Inability on the ULBs' part to mobilise funds hampers their access to grants. Inadequate capacities among staff to address procedural requirements for funds also pose a hurdle to access few funds.

**Figure 4: Conditions of use of grants/funds**



It may be noted that, at present, systematic data on utilisation of funds/grants is not available. Limited efforts have been made at the state government level to collect, consolidate and analyse fund utilisation patterns of ULBs.

**Reform-linked funding**

In its attempt to tackle institutional and financial issues hindering urban development, the GoI in 2005 – through the JNNURM – introduced the feature of reform-linked funding. In line with this, the national government sought reform commitments from the state and local governments to avail funding. As per the new norms, state and local governments had to sign an MoA to undertake specific reforms over a seven-year period. In doing so, the GoI has linked almost 83 per cent

of its programme grants to reform implementation. The GoM also followed suit and introduced a similar feature under its SNMA and MSJNMA programmes. As of now, approximately 60 per cent of total urban sector funds in the state have been tied to reform implementation.

However, this attempt has met with varied degrees of success. Of the seven JNNURM cities in the state, reform measures such as adoption of double entry accounting, implementation of e-governance, 100 per cent O&M cost recovery for water supply and SWM services, etc, has been done by four ULBs; only two ULBs have managed to ensure over 90 per cent collection of property tax. Similar variations are also seen in the 73 UIDSSMT ULBs of the state. As of 2009, only four of the 73 ULBs had migrated to double entry accounting system. However, these ULBs have fared better in the area of implementation of property tax, with 31 of them having done so.

The state's MSJNMA scheme also has reforms which are aligned to those listed under the JNNURM. The state's SNMA scheme includes reforms such as systematic reduction of non-revenue water (NRW) losses, increase of metering and gradual tariff rationalisation. To monitor these reforms carefully, a CMU has been constituted, which is expected to make informed decisions on release of funds.

Similar to the instance of underutilisation of funds by ULBs, variation in progress of reform implementation by ULBs is due to differences in capacities of the ULBs.

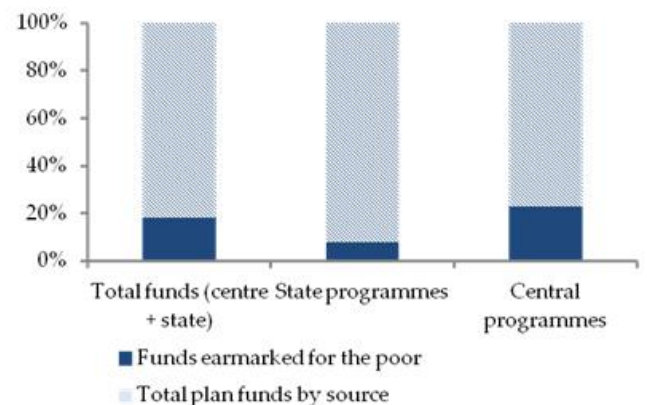
To ensure that reforms get implemented and achieve the intended goals, ULBs may be supported with capacity building initiatives that help them develop performance improvement plans. The possibility of further linking the performance monitoring systems of the GoM's

reward/incentive schemes to standardised performance indicators for the development of support tools for reform linked funding may be explored.

### **Earmarking funds for the poor**

An important urban development agenda is the inclusion of the poor in the urban growth process. In FY 2009–10, funds earmarked for the poor through various programmes comprised 18 per cent of the total plan funds in Maharashtra. Additionally, the centre's share in funds for the poor was higher at 22.8 per cent as compared with the state's share of 7.55 per cent.

**Figure 3: Share of funds earmarked for the urban poor (%)**



Assessment of pro-poor programmes implemented in the state indicates a pattern similar to that observed in similar schemes launched by the central government. In both instances, there appears to be a distinct policy shift towards provision of housing for the poor instead of focusing on individual basic services. However, the sustainability of such an approach is not clear in view of limited fund availability. Researchers point out that providing universal access may be a more feasible approach to adopt.<sup>10</sup>

<sup>10</sup> See, for example, Mehta and Mehta (2010) and Kundu and Samanta (2010).

In line with the central government's mandate, the GoM has, over the years, issued a few directives such as:

- Modification to Development Control Regulations of ULBs to provide additional land area for housing of economically weaker sections, low income groups or middle income groups.
- 25 per cent of total budget of ULB to be earmarked towards BSUP and formation of a Poor Fund.
- Municipal corporations to earmark 10 per cent of their own income for purpose of providing basic infrastructure services in areas predominated by various economically backward groups.

However, despite the aforementioned directives, assessment of actual allocations for the poor by ULBs has proved to be difficult due to lack of separate ULB-wise data on this aspect. As per the JNNURM, each beneficiary ULB was required to set up a BSUP Fund, and create and operate an appropriate budgetary mechanism to ensure that funds allocated to the poor are also spent. Of a sample five ULBs assessed in Maharashtra, only three had completed the process of formation of the required Fund. To summarise, it is opined that the overall trend of increased allocation for the poor suggests that if properly planned, there would probably be sufficient funds to provide basic access to all the urban poor.

### ***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 91 per cent of the centre's devolution to the state though their share in the states population

is 71 per cent, whereas municipalities with 29 per cent of the population have been allocated only 9 per cent of the funds. Though over the last four years, the average year-on-year allocation to the municipalities at 30 per cent is similar to their population share, their overall share in UWSS funding has steadily declined. From the 30 per cent levels of FY 2005–06, it was down to 6 per cent in FY 2010–11. In the same vein, it may also be noted that the share of municipal corporations towards total UWSS funds has been on an average 19 per cent while that of municipalities has been 0.1 per cent – indicating the latter's lower capacity levels.

In response to the lower capacity levels of some ULBs, the GoM set up a Project Development Fund through its MSJNMA scheme. Under the same scheme, technical consultants have been empanelled to help ULBs with the task of CDP and DPR preparation. In a departure from 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 of the ULB. In absence of this, service delivery would be distorted and this would lead to issues in sustainability of services.

Assessment of UWSS finance in Maharashtra indicates that, though over the last seven years there has been a considerable increase in funding to the sector, it needs to be fortified

further through increased allocations and with concerted efforts of resource mobilisation.

### **Investment funding to meet state government targets**

The GoM has, through its SNMA programme and Vision 2020, set service delivery standards such as 100 per cent access to water supply connections, and safe and hygienic sanitation facilities at the doorstep etc. Using block estimates, the total investment required to meet backlogs in service delivery standards for the state is approx. INR 187 billion (refer to Figure 6). Annual allocations for UWSS over the past three years averaged at INR 40 billion, of which INR 30 billion is estimated to have been allocated for water and wastewater. Of the INR 30 billion nearly 80 per cent of funds came from the central government. While the current UWSS sector gaps can be met in approximately six years provided current funding levels continue, the needs of incremental population estimated at INR 11 billion not only impacts the quality of UWSS services, but also results in the need to raise future investment requirements for infrastructure upgradation.

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

Using High Powered Expert Committee norms, it is observed that there exists a wide gap between the actual and required O&M expenditure by ULBs of Maharashtra. Municipal corporations spent only 55 per cent of the required amount on water supply services and a mere 12 per cent on sewerage services. Smaller ULBs show gap for these sectors in the range of 29 to 67 per cent of the requirement.

Low levels of O&M expenditure indicate ULBs in the state have been deferring required

infrastructure maintenance, which results in increased future requirements for investments. Another related area of concern is the low internal revenue base of ULBs. The share of municipal own income to total income is 85 per cent for municipal corporations and 31 per cent for municipalities.<sup>11</sup> Current revenues from taxes and charges are inadequate to even sustain the insufficient O&M expenditure levels.

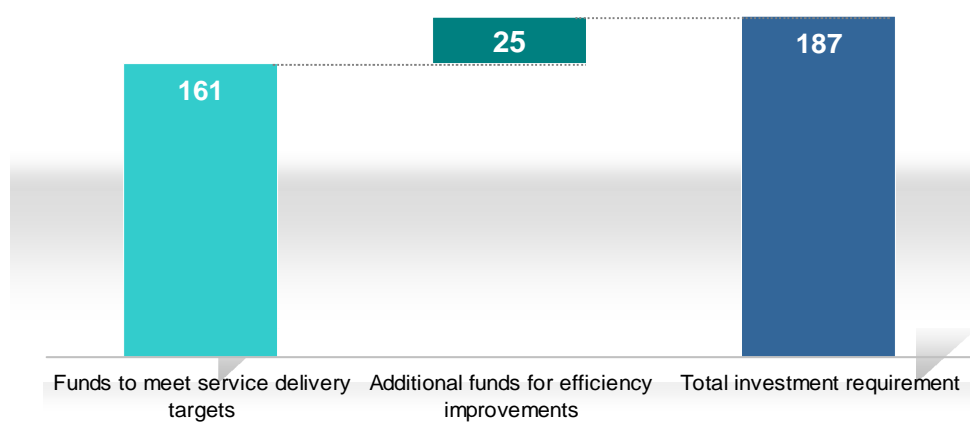
Although among the JNNURM cities in India, three cities in Maharashtra (that is, Nashik, Pune, Greater Mumbai), have reported 100 per cent cost recovery for water supply and SWM services, this is not true for other cities of the state.

**Table 2: O&M recovery for UWSS**

ULBs	% Recovery of O&M expenses (from local taxes & charges)
Municipalities C	46.07
Municipalities B	42.98
Municipalities A	65.24
Municipal corporations	60.15
State average	47.52

<sup>11</sup> Based on assessment of municipal finances in Maharashtra for FY 2005–06 to FY 2008–09.

**Figure 4: Capital investment required to meet service delivery targets (in INR billion)**



It can be seen from Table 2 that less than 50 per cent of O&M expenditure for UWSS is currently recovered through local taxes and charges, with municipal corporations and class A municipalities performing better. Full cost recovery has been made mandatory not only under the JNNURM but also under the GoM's SNMA and MSJNMA schemes. Systematic planning and appropriate tariff setting at ULB level would be critical to achieve this reform.

To respond to these issues, the GoM has initiated the process of water charge revision and is promoting reduction in inefficiencies in service delivery.

### ***ULB's human resource capacity***

As indicated, a key constraint facing ULBs in Maharashtra is their inadequate capacity levels. This refers not only to fiscal but also to inadequacy of human resource capacity. However, limited information is available on the adequacy of technical staff present at ULBs. In the absence of such data, it becomes difficult to comment on the human resource capacity of the state's ULBs.

The GoM has specified a generic staffing pattern by class of ULB, which can be suitably adjusted to account for differences in population. The

Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships Act, 1965, has created a cadre of municipal engineers. This cadre includes engineers, accountants, tax specialists, auditors and town planners. Going a step further, through a Gazette Notification in 2010, the GoM announced an amendment to its Municipal Act, introducing minimum qualifications for staff appointed to municipal cadres.<sup>12</sup> Lack of data does not permit an assessment of impact of these directives/reforms on the staffing structure of ULBs in the state.

It may be useful to draw upon the successful experience of some African countries, such as Mali and Senegal, which have put in place technical support and maintenance contracts.<sup>13</sup> The smaller ULBs receive professional support for routine operations such as meter reading and pump repairs as well as for specialist services such as financial management, tariff setting, expansion and business planning,

<sup>12</sup> GoM, UDD, Gazette Notification Extraordinary: Maharashtra Municipal Councils, Nagar Panchayats and Industrial Townships State Services (Absorption, Recruitment and Conditions of Service) (Amendments) dated 28 January, 2010. This was in response to the fact that ULBs in the state, especially the smaller ones, were staffed by personnel with poor qualifications, as learnt from previous research. Refer, for example, Weist (2004), Volume II: pp 46.

<sup>13</sup> For Mali: Allely, D. (n.d.); for Senegal: Fall (n.d.)

efficiency improvement for NRW, tariff collections and grievance redressal.

### ***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 GoM has made significant efforts in recent years to improve the staffing pattern and salary and incentives for ULB staff in the state:

- Sixth Pay Commission's recommendations for municipal employees have been implemented.
- Special Assistance Grant now includes Octroi, Dearness Allowance grant, pensions as well as the amount required to fill the gap as per Sixth Pay Commission recommendations.
- Pay scales/salaries of municipal staff have been made uniform across ULBs.

To be able to reward good performance, the importance of strengthening internal systems and processes and citizen interface, which are part of JNNURM reforms, is increasingly recognised. These reforms also refer to the use of standardised service level benchmarks to periodically measure and report on the same. Performance on SLB indicators should ideally be linked to staff performance assessments as well. Several GOI ministries have introduced staff performance assessments as part of their Results Frameworks documents; it may be worthwhile to look at the possibility of adapting

these to the context of the urban/UWSS sector in Maharashtra.<sup>14</sup>

In addition to these measures, it would be useful to also explore operational independence for water and sewerage services for some of the larger municipal corporations. For example, in recent years, the Municipal Corporation of Greater Mumbai (MCGM) has sought to explore operational independence for its water supply and sewerage services, in line with its municipal undertaking for bus transport and electricity. The Nagpur Municipal Corporation, on the other hand, has formed a separate company called Nagpur Environmental Services Limited (NECL) and transferred 427 employees from its Water Works Department to the company, with the objective of achieving 24x7 water supply by bringing in efficiencies associated with the private sector. While doing this, however, it would be good to assess performance of such utilities in India which have less autonomy in staff recruitment, remuneration and procurement, which are considered important in the more successful utilities in Africa and Asia.

## **Measures to Strengthen Sector Finance Arrangements**

The assessment of UWSS finance of Maharashtra has brought to the forefront key trends pertaining to the sector. Over the past seven years, the UWSS sector has been receiving high levels of investments. However, the state is heavily dependant on central funds for the sector. 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

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<sup>14</sup> MOUD (2011) and MHUPA (2011).



development. Similar considerations need to prevail for this trend to continue in the future.

Increased allocations by the state for the sector will be required to close the gap in infrastructure quickly and keep pace with urbanisation in the state. Besides, several issues other than investment funding will have to be dealt with to ensure improved service delivery. In particular, sustainability concerns for recurrent funding need to be addressed, along with a host of issues related to human resource capacity.

### ***Increase predictability and timeliness of transfers to ULBs***

At present, only 16 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. With reference to state grants, it is imperative that simpler rules be followed for revenue sharing, transparency be increased in revenue sharing formulas, and a clear statement of policy objectives be undertaken, to increase predictability of transfers. With respect to timeliness, ever since electronic transfers to ULBs by DMA were made mandatory, timeliness of bulk of transfers to ULBs in the state is reported to have improved.

### ***Promote responsible local borrowing***

Debt exposure of the municipal corporations of Maharashtra has increased from 4 per cent in FY 2005–06 to 14 per cent in FY 2007–08. On the other hand, that of the municipalities has declined from 9 per cent of total receipts in FY 2005–06 to 6.6 per cent in FY 2007–08.<sup>15</sup> Though

the governing Acts in Maharashtra provide for borrowing by municipal corporations, there are no enabling legislations/guidelines for municipalities on debt and its management.

The state government has taken significant steps to facilitate greater local borrowing to finance infrastructure development, with MUINFRA as an intermediary. However, the current practice of interception of transfers by the state for repayment of local loans (state guaranteed loans or open market borrowings) diminishes the responsibility of ULBs related to borrowing, as also predictability of transfer. Most of the existing ULB debt is believed to have been incurred in a system with less incentive to repay debt. The possibility of restructuring of such debts on the lines of Tamil Nadu, with strict enforcement of repayment coupled with greater transparency and incentives for enhanced credit ratings must be considered by the state government. To meet the huge investment requirements for the sector, the state government needs to define guidelines and processes to enable ULBs, especially smaller ones, to raise resources/implement and manage projects through private-public partnerships, municipal bonds/pooled financing mechanisms.

### ***Make implementation of earmarking for the poor effective and uniform***

The current recommended norm under the JNNURM for internal earmarking for programme ULBs is 25 per cent of municipal budgets, including funds from higher level governments. In contrast, several JNNURM/UIDSSMT ULBs continue to cite the 1988 GR and earmark only 5 per cent of their funds for the poor, similar to non-Mission cities.<sup>16</sup> A uniform state-wide policy on

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<sup>15</sup> Economic Survey of GoM for 2005–08.

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<sup>16</sup> TISS (2009).

earmarking for the poor is clearly required in Maharashtra, as in Gujarat and Andhra Pradesh, where the policies of 20 per cent and 40 per cent internal earmarking of funds for poor, respectively, have been adopted. A system that regularly tracks such allocations, expenditures and outcomes is required hand in hand with adequate information on all slums/poor settlements. In addition, there is need for consolidation of programmes for urban poor and UWSS, which currently follow several funding routes, leading to fragmented outcomes and parallel systems of monitoring and reporting.

### ***Provide technical support to smaller municipalities***

The GoM has taken the right step by engaging MUINFRA to provide technical support to ULBs for its MSJNMA scheme. However, by itself, MUINFRA would be unable to solely manage this task since it may be short staffed with technical staff which possess the right combination of skills. Also, capacity building at local level may not be adequately addressed through this approach.

Yet, it is important that the government steps up its efforts in this area. The government may consider empanelling consultants in conjunction with engaging small service providers or non-governmental organisations to undertake activities such as regularisation of illegal connections and undertaking billing and collection activities.

### ***Address key staffing challenges***

A key aspect concerning staffing that the GoM needs to address is related to performance incentives given to the staff. Despite the fact that reforms are under way in JNNURM ULBs, the

fact remains that only 50 per cent of ULBs have been able to initiate these reforms.

The administrative reforms under the JNNURM indicate ways of rewarding good performance, as well as highlight the importance of strengthening internal systems and processes and having a robust citizen interface. The reform also refers to the use of standardised service level benchmarks to periodically measure and report ULB performance on the same. These should ideally be linked to staff performance assessments. It would be worthwhile to refer to the staff performance assessment systems linked to Results Framework Documents for some central ministries.

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

Given their inherent low capacities, smaller ULBs in Maharashtra function under a model where the state develops the water supply system for the ULB, and the latter is then given the responsibility of asset management as well as operating and maintaining the water supply system. Given this scenario, it is extremely critical that ULBs be able to fully fund their own O&M expense. The low level of O&M financing through own income sources, and the low O&M expenditure levels, call for corrective interventions.

Initiation of water and energy audits in ULBs across the state (which are expected to translate into huge savings) need to be accompanied by improved capacity for internal resource mobilisation for O&M, billing and collection and technical aspects, to ensure that inefficiencies are addressed and O&M sustainability achieved.

### ***Address data issues for sector finance***

The assessment of the UWSS finance for Maharashtra was constrained on account of the following limitations:

- Data on municipal finance available at the state level are dated and do not allow a detailed assessment of the existing debt profile. It would be worthwhile to assess the extent of debt/liabilities of ULBs with particular reference to UWSS related debt. This could provide pointers to restructuring/managing debt, as mentioned above, and identifying specific areas in which local capacity, both managerial and financial, needs to be built to manage debt.
- Data on utilisation of non-Plan state grants is currently not collected at the state level. Most of these funds are known to be utilised by ULBs in Maharashtra for payment of salaries. However, there is a possibility that some ULBs in Maharashtra utilise these grants for UWSS/other urban infrastructure, or towards ULB share of programmes/schemes; data limitations do not allow tracking of the same.
- While the GoM follows the practice of announcing allocations for UWSS and other sectors under some state programmes (for example, MSJNMA) through Government Resolutions, this is not the case for others. To clearly establish the state's priority on UWSS by sub-sector and for the urban poor, this practice needs to be followed for all programmes. Hence, better tracking and reporting of expenditure by sub-sectors by ULBs and aggregation at state level would be required.
- Consolidation of UWSS sector programmes and funds for urban poor, as discussed, will enable tracking of expenditures, outputs and outcomes, which is currently constrained by lack of adequate information. Though routine monitoring and reporting of information from ULBs to state on status of UWSS services does take place, reporting of information on outcomes either through household level 'report cards' or assessments, or from service provider perspective, is not being practiced at present. Such information, proposed under the ongoing PAS Project, is expected to enable regular measurement of improvement in sector performance, while making it possible to undertake mid-course corrections when required. This would be necessary if the sector is to assess, on a continuous basis, not only adequacy of funds for UWSS and urban poor, but also the efficiency and effectiveness of the utilisation of such funds. It would also enable the state to move towards adoption of a sector financing strategy and investment plan and improved coordination of activities for the sector.

## 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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