



British
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WORLD BANK GROUP

Institutional Models for Governance of Urban Services

Volume 2 – Synthesis Report December 2021



Authors

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Volume 2A

Country Report of India (Final Diagnostic Report)



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ABBREVIATIONS



ACTSL	Amritsar City Transport Service Limited
ADA	Area Development Authority
AJL	Ahmedabad Janmarg Limited
AMC	Ahmedabad Municipal Corporation
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
AMTS	Ahmedabad Municipal Transport Services
ANC	African National Congress
AUDA	Ahmedabad Urban Development Authority
AUIT	Amritsar Urban Improvement Trust
BRT	Bus Rapid Transit
BRTS	Bus Rapid Transit System
CAFR	Comprehensive Annual Financial Reports
CAGR	Compound Annual Growth Rate
CEO	Chief Executive Officer
CMA	Commissionerate of Municipal Administration
CMDA	Chennai Metropolitan Development Authority
CHC	Community Health Centers
CMU	Contract Management Unit
CSOs	Combined Sewer Overflows
DCOG	Department of Cooperative Governance
CCMC	Chennai City Municipal Corporation
DDMA	district Disaster Management Authorities
EoLI	Ease of Living Index
GAAP	Generally Accepted Accounting Principles
GCC	Greater Chennai Corporation
GHB	Gujarat Housing Board
GJMC	Greater Johannesburg Metropolitan Council
GMFB	Gujarat Municipal Finance Board
GRAP	Generally Recognized Accounting Practice
GST	Goods and Services Tax
GUDC	Gujarat Urban Development Company
GUDM	Gujarat Urban Development Mission
GWSSB	Gujarat Water Supply and Sewerage Board
GSDMA	Gujarat State Disaster Management Act
IDP	Integrated Development Plan
IEC	Information, Education and Communication

INR	Indian Rupee
IWMP	Integrated Waste Management Plan
JNNURM	Jawaharlal Nehru National Urban Renewal Mission
JOWAM	Johannesburg Water Management
JRA	Johannesburg Road Agency
JW	Johannesburg Water/Joburg Water
LPCD	Litres per capita per day
MAYCO	Mayoral Committee
MCA	Municipal Corporation of Amritsar
MCP	Municipal Corporation of Patiala
MHA	Ministry of Home Affairs
MMC	Member of the Mayoral Committee
MoHUA	Ministry of Housing and Urban Affairs
MoHFW	Ministry of Health & Family Welfare
MWRD	Metropolitan Water Reclamation District
NADA	Nadiad Area Development Authority
NEC	National Executive Committee
NIDM	National Institute of Disaster Management
NDMA	National Disaster Management Authority
NNP	Nadiad Nagar Palika
NRW	Non-Revenue Water
O&M	Operation and Maintenance
PIDB	Punjab Infrastructure Development Board
PMBS	Punjab Metro Bus Society
PMIDC	Punjab Municipal Infrastructure Development Company
PPP	Public Private Partnership
PRTD	Punjab Regional and Town Development
PUPDA	Punjab Urban Planning & Development Authority
PWD	Public Works Department
PWSSB	Punjab Water Supply and Sewerage Board
RBIG	Regional Bulk Infrastructure Grant
RTA	Regional Transit Authority
SDA	Service Delivery Agreement
SDBIP	Service Delivery and Budget Implementation Plan
SDRF	State Disaster Relief Funds
SHU	Shareholder Unit
SLB	Service Level Benchmarking
SDMA	State Disaster Management Authority
SWM	Solid Waste Management
TARP	Tunnels and Reservoirs Project
T&CP	Department of Town and Country Planning
UACs	Utilities, Agencies and Companies
UD & UHD	Urban Development and Urban Housing Department
UDD	Urban Development Department
ULB	Urban Local Body
UHCs	Urban Health Centers
WDR	World Development Report
WSA	Water Services Authority
WSCM	Water Service Compliance Monitoring
WSIG	Water Services Infrastructure Grant

INTRODUCTION



Background

Rise in urbanization has accompanied India's sustained economic growth in the last couple of decades. As per Census of India projections¹, **460 million** people (34% of the country's total population) live in cities as of 2020; by 2036, over **600 million** (40%) Indians are estimated to live in urban areas. The Number of million-plus cities increased from 35 in 2001 to 53 in 2011, accounting for 43% of India's urban population; this figure is expected to shoot up to 87% by 2030.



The division of powers between the central, state and city governments, as delineated in the Indian Constitution, is heavily biased towards the central government. The powers of the top two federal units, central and state governments, are captured through the central, state, and concurrent lists, but there is no description of the power of city governments. Moreover, in a situation of conflict between central and state governments over the interpretation of the concurrent list, the central government has the power to override the state governments.

In a recent study, 21 cities were assessed to see how much control they had over the 18 core functions listed under the Constitutional Amendment Act. The study found that not a single city government had control over all of them. Mumbai led with control over nine functions, followed by Kochi with control over eight. And out of the 21 cities assessed, in only 12 of them, including Delhi, Ahmedabad and Mumbai, did city governments have the authority to approve their own budgets. In the nine remaining cities, including Patna, Gurugram and Dharamshala, it was the state governments that approved them. The CAG Report has similar findings in the state of Karnataka – on average, only 3 of the 18 urban functions were under the 'full jurisdiction' of the ULBs.

The Great Indian Debate, Mr. Kunal Kumar, December 2020



The 74th Constitution Amendment Act 1992, recognized Urban Local Bodies (ULBs) as a third tier of government and 18 functions listed in the 12th Schedule are to be transferred to local governments. However, it is close to three decades now of the constitutional amendment, and barring a few exceptions, this crucial step remains unexecuted. In many states, some of the functions are handled by parastatal agencies, state government departments, and ULBs.

The primary reason that can be attributed to this is urban being a state function, central legislation is not executable in complete form and depend on state views. Some of reasons by many states for not transferring all the functions to ULBs, could be many, including:

1 Population projections for India and states 2011-2036. Report of technical group on population projections, 2019.

- **Technical capacity:** lack of adequate manpower² with the local bodies and inadequate technical skills of existing manpower to manage these additional functions;
- **Financial capacity:** With transfer of function, the state government would need to transfer additional resources or assign the relevant revenue streams from the state resources to the local body, and would thus need financial resources to handle the additional function; and
- **Delegation of functions:** The state government may be reluctant to transfer certain functions to a local body, e.g., town planning, land use regulation, and execution of large-scale projects, due to various reasons.

In terms of service delivery, local governments in India are not perceived as well-performing on the following three parameters (i) service coverage; (ii) service quality; and (iii) service efficiency. According to the Ministry of Housing and Urban Affairs (MoHUA), in terms of service coverage, 64% and 31% of households in India are covered by direct water supply and sewerage services, respectively.



***The institutional fragmentation:** for instance, the twin cities of Pune and Pimpri-Chinchwad, which merge seamlessly into one another, are separately governed by their own municipal corporations, with no mechanism for coordination between them. And although transport, more than any other factor, makes a city efficient, the multitude of bodies governing the sector stymies concerted action, leading to an absurd state of affairs for such an important urban conglomeration.*

In Delhi too, roads fall under six different authorities — the local municipal corporation, the PWD, NDMC, DDA, NHAI and the Delhi Cantonment Board, making it extremely challenging to devise a coherent traffic plan for the city and giving residents a run-around to get potholes and other deficiencies attended to. But this does not have to be the case.

In Shimla, it was only after acute water shortages and a jaundice epidemic gripped the city in the summer of 2018 that the government did away with the fragmented roles and responsibilities of its various water management agencies and incorporated a single water supply and sewerage company. Today, the company has full autonomy and clear responsibility to improve the sector's operational and financial performance and be accountable to citizens. Unfortunately, it is only when a crisis pushes our backs to the wall that we undertake such path-breaking initiatives.

The Great Indian Debate, Mr. Kunal Kumar, December 2020



According to the Central Pollution Control Board, only 30% of sewage is treated and only 25% of municipal solid waste is treated and disposed. Local governments also underperform on service efficiency parameters, e.g., lack of 100% door-to-door collection of solid waste, unreliable intermittent supply or absence of 24x7 water supply despite availability of adequate water.

With regard to city transport, citizens are largely dependent on private transport. The share of public transport is just 18.1% of work trips. Increased use of private transport has led to congestion on roads and longer commuting periods. Average speed of traffic in key Indian cities is just 17-23 kmph, while average cycling speed is 15-16 kmph. ULBs are overwhelmed by the mammoth challenges of urban management.

Institutional fragmentation or involvement of multiple agencies in providing a single service is another crippling feature of the cities. Multiplicity of authorities, often with overlapping jurisdictions and different

2 For example, if the town planning function is to be transferred to a local body, the state government needs to transfer the existing staff to the local body, or the local body needs to recruit on its own.

reporting hierarchies, results in lack of accountability between various agencies. This prevents concerted action and causes interminable delays. Involvement of multiple institutions in service delivery, along with fragmented responsibility and accountability, is leading to:

- Lack of clear authority at institutional level;
- Non-responsive and accountable behaviour towards citizens; and
- Inability to provide reliable, accessible, sustainable, and efficient services.

A robust institutional framework and clear organizational structures are quintessential for local governments to deliver services effectively.

Assignment objective and approach

Assignment objective

The overall objective of the technical assistance program is to develop options and recommendations for effective governance of urban service delivery in India under three different institutional structures listed below, by reviewing international best practices (USA & South Africa) and recommend possible reform measures:

- When services are delivered by a **department** of a municipality or municipal corporation;
- When services are delivered by a **corporatized municipal entity**, accountable to the municipality or municipal corporation; and
- When urban services are delivered by an **agency of a state government**, or another entity accountable to the state government.

Assignment approach

The approach is to develop options and recommendations to reform institutional structures for Indian cities as required for better service delivery. In addition to the review of Indian institutional structures, recommendations based on international best practices from USA³ and South Africa shall also be evaluated for similar services and institutional structures.

However, the scope of this Report is limited to a diagnostic study of institutional models for urban services in India and identify the issues thereof, based on the initial findings of the study **“An analytical study to recommend reforms for urban institutional models in Indian cities”** undertaken by CRISIL Infrastructure Advisory, to address further any gaps or for deeper review of governance approaches to urban service delivery, the consultant has coordinated with the concerned cities.

The approach adopted for this report is as follows:

- Examine the institutional structure of four Indian cities - Ahmedabad and Nadiad from Gujarat, Amritsar and Patiala from Punjab;
- In each of these cities, institutional structures for two services have been reviewed; these institutional models may fall in one of three categories indicated above under study objective (i.e., services are

3 The international cities that were identified for mapping best practices are Dayton and Chicago, in the USA, and Johannesburg and Mbombela in South Africa.

delivered by a **department of municipality**, services are delivered by a **corporatized municipal entity**, and services are delivered by an **agency of a state government**);

- The diagnosis of institutional models for service delivery in India, was undertaken and we have reviewed the institutional models for identified services, with respect to:
 - Legal and institutional arrangements;
 - Oversight, autonomy, and accountability;
 - Finances;
 - Transparency, citizen participation and other ('upward' and 'downward') accountability mechanisms; and
 - Outcome indicators related to service delivery, infrastructure investment, organizational performance and public satisfaction.
- The urban services that have been considered for diagnosis in each city are:
 - **Ahmedabad:** Water supply & sewerage and transport;
 - **Nadiad:** Water supply & sewerage and SWM;
 - **Amritsar:** Water supply & sewerage and SWM; and
 - **Patiala:** Water supply & sewerage and SWM.

Approach for further diagnosis

The current governing regulations in each city and the organizational structures for various urban services is presented in Table 1.

CRISIL Infrastructure Advisory had undertaken the initial assessment of institutional models and the key take-aways the key takeaways from their report are:

- ULBs are not wholly autonomous, irrespective of whether they are regulated by the state department or state nodal agency;
- Cities are governed by multiple regulations and various institutional structures for service delivery. A few services are completely taken care of by ULBs, while some services are provided by the state department or its agency. A few services are provided jointly by both an ULB and corresponding state department, with each assigned a defined role;
- Urban planning and urban transport are primarily provided by state departments or parastatals;
- In larger cities, both capital works and operations and maintenance (O&M) of water supply and sewerage are directly taken care of by the concerned department of the ULB; while in smaller cities, generally large capital works are undertaken by the state nodal agency or state-level department, while minor capital works and O&M is delegated to the concerned ULB, while in some cases, if funding is from own sources, even large capital works are undertaken by cities; and
- As far as solid waste management (SWM) is concerned, ULBs are solely responsible for all capital and O&M works.

TABLE 1 URBAN INSTITUTIONAL FRAMEWORK – PUNJAB AND GUJARAT

Parameter	Punjab		Gujarat	
	Amritsar	Patiala	Ahmedabad	Nadiad
State-level nodal ministry	Department of Local Government Department of Housing and Urban Development		Urban Development Department (UDD)	Commissionerate of Municipal Administration under UDD
Governing Acts	Punjab Municipal Corporations Act, 1976 PWSSB Act, 1976 Punjab Regional and Town Planning and Development Act, 1995		Gujarat Provincial Municipal Corporations Act, 1949 Gujarat Town Planning and Urban Development Act, 1976	Gujarat Municipalities Act, 1963 Gujarat Town Planning and Urban Development Act, 1976
Parastatals operating or involved in the city	Punjab municipal infrastructure development company (PMIDC) for overall supervision ⁴ Punjab infrastructure development Board (PIDB) for bus rapid transport service (BRT), Amritsar urban improvement trust (AUIT) for urban expansion and renewal, PUPDA for urban planning	PMIDC for overall supervision PWSSB for execution of capital works of water supply and sewerage services. However, once the project is commissioned for O&M, they hand over the assets to the local bodies Improvement Trust Patiala for urban expansion and urban renewal projects, PUPDA for urban planning aspects	Ahmedabad urban development authority (AUDA) for urban planning	Nadiad area development authority (NADA) for urban planning (As per state government notification, all municipal councils have been designated as Area Development Authority) Gujarat urban development company (GUDC) and Gujarat urban development mission (GUDM) for implementing large urban infrastructure projects
Service provision				
Water supply	MCA for capital and O&M works	MCP for minor capital works and O&M. PWSSB for design of large capital works and their execution. It is observed that even MCP also takes up large scale projects	AMC for capital and O&M works	NNP for capital works and O&M; GUDC/ GUDM for capital works design and execution of large projects funded under centrally sponsored missions

4 PMIDC a non-profit company constituted under Section 25 of Companies Act, while department of local government is a state-level nodal agency, responsible for overall supervision of JNNURM, AMRUT, Smart City, and Swachh Bharat Mission. The agency also has to play a coordinator in some state-level initiatives of the department like e-governance, energy efficiency, SWM and projects supported by multi-lateral funding institutions. In addition, PMIDC is intended to act/position for large-scale resource mobilization and public-private partnerships initiatives in urban sector.

Parameter	Punjab		Gujarat	
	Amritsar	Patiala	Ahmedabad	Nadiad
Sewerage	MCA for both capital works and O&M	MCP for minor capital works and O&M PWSSB for design of large capital works and their execution	AMC for capital and O&M works	NNP for capital works and O&M; GUDC/ GUDM for capital works design and execution of large projects funded under centrally sponsored missions
SWM	Both in MCA and MCP capital works and O&M is taken care by the ULB PMIDC influences the decision of cluster-based integrated SWM projects by providing advisory support to collaborating cities Some activities of SWM are outsourced to external agencies/on PPP		AMC - for both capital and O&M works, some activities of SWM are outsourced to external agencies/on PPP	NNP - for both capital and O&M works, some activities of SWM are outsourced to external agencies/on PPP
Urban transport	PIDB provides BRT services ⁵ through a special organization created for the provision of BRT service in Punjab. Prior to BRT service, city bus services were provided by Amritsar City Transport Service Limited (ACTSL). The service was started in 2009, when Gol provided buses as part of stimulus package; the operations were suspended in 2013	City bus service is not provided.	AMC provides city bus services through an undertaking, Ahmedabad municipal transport services (AMTS ⁶), and BRT service is provided through a 100% subsidiary, Ahmedabad Janmarg Limited (AJL)	City bus services started in 1986, but suspended since 2011 on account of inadequate financial resources to maintain it
Urban planning	MCA has no mandate to prepare land-use master plans The Town and Country Planning (T&CP) Department of state government which comes under the Department of Housing & Urban Development prepares plans for MCA	As in case of Amritsar, in Patiala also, T&CP prepares the master plan	AMC prepares plans and integrates them with plans prepared by AUDA for larger urban agglomeration	NNP regulates development plan within its limits. As per the regulation, the city council is designated as Area Development Authority

5 The state government created a not-for-profit organization, Punjab Metro Bus Society (PMBS), under the PIDB, to operate BRT services in five cities of Punjab, including Amritsar.

6 AMTS is an independent municipal entity, in terms of having separate budget, managed by a Transport committee, however from overall governance point of view it is an extended arm of AMC.

Service delivery models for further diagnostic study

As per revised scope of work for this report, the institutional framework as summarized in Table 1 has been remapped under three shortlisted institutional models and the identified services for further investigation are presented in Table 2, which would form the base for comparison with international best practices for recommending the possible changes in the institutional structure for improvement in service delivery.

TABLE 2 INSTITUTIONAL STRUCTURE FOR SERVICE DELIVERY– PUNJAB & GUJARAT

Parameter	Punjab		Gujarat	
	Amritsar	Patiala	Ahmedabad	Nadiad
Department of Municipality				
Water supply & sewerage	✓	Minor capital works and O&M	✓	Minor capital works and O&M
SWM	✓	✓	✓	✓
Corporatized municipal entity				
Transport	NA	NA	✓	NA
Agency of state government				
Water supply & sewerage	×	PWSSB for design and execution of major capital works	×	GWSSB/GUDC/ GUDM for design and execution of major capital works and large-scale projects funded under centrally sponsored schemes

Observations about sample cities:

- Water supply & sewerage and SWM are provided directly by a **department of municipality** in all four cities; though design and execution of major water and sewerage works are also provided by state agencies in the two smaller cities;
- City transport is provided by a **corporatized municipal entity** in only one city (Ahmedabad) with a public transport system; and
- In these four cities, no **state agency** provides any service end to end. However, in both the states, a state agency undertakes capital works for water supply and sewerage in smaller cities⁷.

⁷ Note that in other states, there are institutional models under which state agencies provide water and sanitation service directly to citizens (BMWSSB in Bangalore, CMWSSB in Tamil Nadu and HMWSSB in Telangana).

DIAGNOSIS OF INSTITUTIONAL MODELS



Urban institutional structure in Punjab

In Punjab, urban functions are governed by two departments of the state government through their specialized institutions. (Detailed description of the organization and the governance framework is presented in Annexure 4.1). The two departments and the institutions under them are:

- **Department of Local Government, comprising:**
 - Punjab Water Supply and Sewerage Board (PWSSB);
 - Punjab Municipal Infrastructure Development Company (PMIDC); and
 - Urban Improvement Trust.
- **Department of Housing and Urban Development, comprising:**
 - Punjab Regional and Town Development Board (PRTD);
 - Department of T&CP; and
 - Punjab Urban Planning & Development Authority (PUPDA).

For all administration matters, ULB report to Department of Local Government.

The Punjab Municipal Corporation Act, 1976, governs the functioning of the municipal Corporations in the state. This Act makes it mandatory for the corporations to provide water supply as well as sewerage and SWM services. In 1976, the Punjab government set up PWSSB through legislation, for provision of urban water supply and sewerage services. The coexistence of these two Acts has meant that in some cities the provision of services is a shared responsibility – PWSSB is perceived to be more adept in handling capital works, and municipal corporations are in O&M activities.

Urban transport and urban planning do not form a part of the mandate of the Corporations as per the Act. Urban planning in Punjab primarily focuses on land-use management and responsibility for the same is shared between PRTD Board, T&CP, PUDA and Improvement Trusts. The framework is identical for both Amritsar and Patiala.

The elected wing of a municipal corporation has a 5-year term. The councilors appoint a Mayor, a senior Deputy Mayor, and a Deputy Mayor from among themselves. The Commissioner takes regular feedback from elected representative on all Matters and all resolutions passed by the Corporation need to be approved at the state government level by the Department of Local Government. Thus, the elected wing does not have

autonomy to take final decisions on local policy matters, this is primarily because in most cities finances are stressed and they depend on state government grants.

The Executive Wing, comprising officers and other staff members of the Corporation, is headed by a Municipal Commissioner appointed by the state government. As per the Act, the mayor may give directions to the commissioner from time to time. The role of the mayor is not obligatory but discretionary in municipal administration. The municipal staff reports to the Commissioner and not to the Mayor. The Mayor, along with the elected officials, does not have any control over the functioning of municipal officials.

All expenditure above INR 10 million (which currently works out to about 0.3% and 1.1% of MCA's and MCP's revenues, respectively) needs to be approved by the Department of Local Government. While the local government can vet proposals up to INR 5 million, approval power still rests with the Department of Local Government. Annual budget must be submitted to the Department of Local Government for approval.

Property tax rates are determined and revised by the state government and corporations require the approval of the state government for undertaking any borrowing. Recently the state government allowed local bodies to move towards volumetric tariff from flat rate tariff for water.

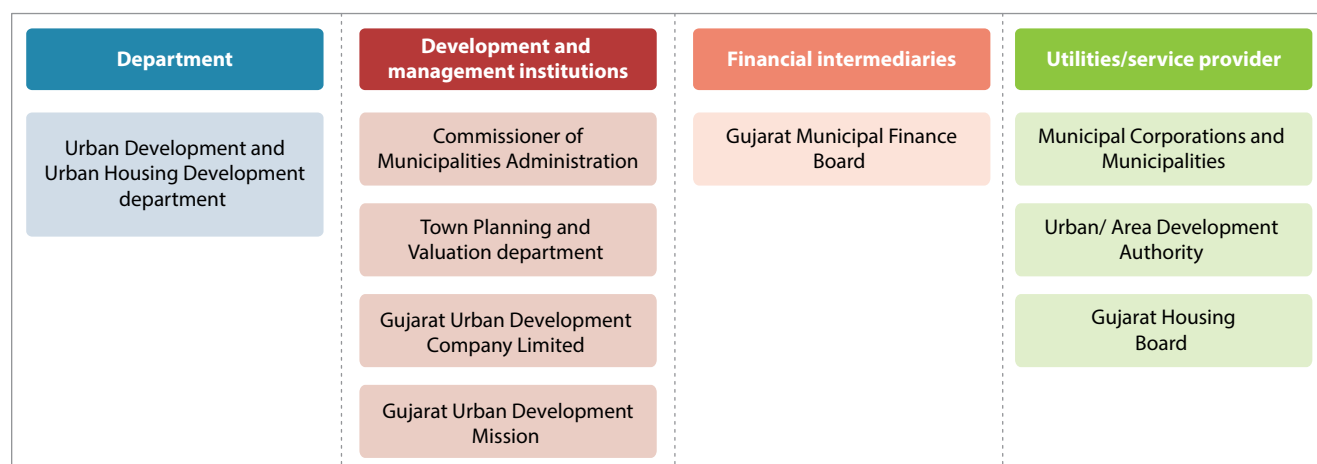
Urban institutional structure in Gujarat

Urban institutional framework in Gujarat is governed by **Urban Development and Urban Housing Department (UD&UHD)** through its specialised institutions. (Detailed description of the organization and the legal framework is presented in Annexure 4.2). The framework comprises:

- Gujarat Urban Development Company (GUDC);
- Gujarat Urban Development Mission (GUDM);
- Town Planning and Valuation Department;
- Commissionerate of Municipal Administration (CMA); and
- Gujarat Municipal Finance Board (GMFB).

A number of agencies in Gujarat handle the mandate of design and development of urban service provision. The municipal corporations design, develop and maintain infrastructure projects, whereas in case of municipalities GUDC and GUDM design and develop infrastructure projects, if the funding is from state or

FIGURE 1 INSTITUTIONAL STRUCTURE IN GUJARAT – W.R.T TO THE ROLE



centrally sponsored schemes, however for maintenance purposes the assets are transferred to municipalities. The urban planning function has been devolved to Corporation or city specific urban development authorities. However, in case of municipalities, the Town Planning and Valuation Department manages the urban planning function. The CMA oversees administration and governance in municipalities. The Municipal Corporation directly reports to the UD&UHD. The Gujarat government should potentially drive greater policy coherence and improved institutional effectiveness through rationalization overlapping mandates of parastatal agencies and clear delegation of functions of ULBs and other agencies working in the ULB limit.

Municipal corporations in Gujarat are governed by the Gujarat Municipal Corporations Act, 1976 and the Municipal Councils by the Gujarat Municipalities Act, 1963. The Municipal Commissioners of municipal corporations report directly to the UD&UHD, while a separate Commissionerate has been created at state level to fast-track the decision-making process for the municipal councils⁸.

Municipal corporations are responsible for design and implementation of capital works and for O&M of water supply, sewerage and SWM facilities. Urban transport is a discretionary service to be provided by the corporations.

Municipal councils (cities with less than 0.3 million population) are also responsible for design and implementation of capital works and for O&M of water supply, sewerage and SWM facilities. But a few projects, such as those funded under centrally sponsored schemes (JnNURM, AMRUT, etc.) are supported by state-level agencies, such as GUDC/GUDM in project implementation.

Urban planning is supervised by the Town Planning and Valuation Department, constituted under the state's UD&UHD.

All the municipal corporations and the municipal councils have an elected wing consisting of councilors elected for a 5-year term. The elected wing of municipal corporations appoints a mayor and a deputy mayor for 2.5 years. Similarly, the elected wing of the municipal councils appoints the president and a vice-president for 2.5 years.

All local body level aspects/functions are decided by the general board (consisting of all elected representatives) of the municipal corporations and the general board is empowered to take any decision related to the corporations and they do not need to secure the state government's approval, except for matters concerning; (a) in defining the institutional structure; (b) undertaking any borrowings; and (c) approval of land use plans.

The Standing Committee has powers:

- To approve the tenders and any procurement;
- To prepare budgets and calls for budgets (while the Commissioner can only provide estimates for revenue and expenditure);
- To propose tariff revision and fees within the limits specified by the state government, but cannot revise bylaws (i.e., anything which is not defined in Acts/Bylaws etc.) e.g., the unit rate for property tax rate in Corporation areas for residential properties is INR 12-20 and for commercial it is between INR 20-40;
- To recommend any changes to the state government, but they do not have the power to change, e.g.;

⁸ In Gujarat, there are 8 Municipal Corporations and 162 Municipal Councils. As far as reporting by the executive head of the local body is concerned, municipal corporations directly report to UD&UHD. But municipal councils/municipalities report to UD&UHD through the CMA. This arrangement may have been established to expedite decision-making at the state level, so that smaller local bodies represent the department through a state-level institution (CMA) and in addition the municipalities also report to the District Collector.

- In case of any land use changes, any land reservations; and
- Modification in bye-laws etc.
- The Commissioner can only request state government to suspend or reject any proposals of the Standing Committee; and
- As far as the state government is concerned (through the Principal Secretary of UD&UHD- who is only the Administrative Head) can supervise or monitor the functioning of the municipal corporation, but the Commissioner has all rights to implement all the policy aspects.

In case of municipalities, the President has some extra powers in comparison to the Mayor of the municipal corporation:

- The President of municipality prepares the budget and calls for budget meetings unlike in Municipal Corporation this power is vested with the Standing Committee; and
- The Chairperson is empowered to monitor and approve any financial transaction, while its commissioner in case of municipal corporations.

Though the Commissioner is a state government representative, he is answerable to the General Board for all local level issues and state government, and each staff member of the local body is answerable to the elected body. Once the budget is approved the project can be taken up, and without the approval of the standing committee, no work can be taken up in the Municipal Corporation.

The municipal councils also have a similar level of administrative autonomy. However, any changes in bylaws, tariff proposal they send the resolutions to CMA for information.

The executive wing of the municipal corporations, comprising officers and other staff members of the corporation, is headed by a municipal commissioner appointed by the state government and reports to state government (UD&UHD). Similarly, the chief officer of municipal council is appointed by the state government who reports to the commissioner of CMA.

It is to be noted that the President of the municipal council holds more executive powers than the Mayor of municipal corporations. The president is empowered to monitor financial and executive administration of the municipality and to perform executive functions as per the legal framework. The president is also empowered to exercise supervision and control over the executive staff of the municipal councils and can set aside or modify any order of the chief officer. The mayor of municipal corporations may propose development works but has no defined control over the executive wing.

The reason for the President of the municipal council having more executive power than the Mayor of the municipal corporation could be because:

- Historically the District Collector used to be the Administrative Head of all the councils in the district, including rural local bodies, and the executive powers were vested with the Collector. While in the case of Municipal Corporations, these executive powers were with the Municipal Commissioner, who is a senior officer of Indian Administrative Service (IAS) rank;
- The Municipal council is headed by a Chief Officer who is a Group 1/2/3 rank officer of the state government cadre and reports to the District Collector; hence the collector may have the executive power as in the case of commissioner of municipal corporation and at municipal council level, the President has power because the Chief Officer is of state cadre rank; and
- In addition, the Commissioner of CMA is also a senior officer who supervises the overall administration of all municipal councils; hence the Chief Officer has less power than the Commissioner, and the President of the Municipal Council may have executive powers at the Council level.

Framework for diagnosis of institutional models for urban services

The preliminary demographic and general information for the selected four cities for the diagnostic study is presented in Table 3. The shortlisted services are: (i) water supply and sewerage; (ii) SWM; and (iii) urban transport, though in each city only two services were analyzed in detail.

TABLE 3 DEMOGRAPHIC & GENERAL INFORMATION OF SELECTED CITIES

Parameter	Punjab		Gujarat	
	Amritsar	Patiala	Ahmedabad	Nadiad
Class of ULB	Corporation	Corporation	Corporation	Municipality
Area sq. km	136.00	50.11	466.00	28.34
Population-Census 2011	1,132,761	405,164	5,577,940	218,150
No. of households	239,078	93,805	1,179,823	47,3070
Executive head	Commissioner (IAS, from National Cadre)	Commissioner (IAS, from National Cadre)	Commissioner (IAS, from National Cadre)	Chief Officer (state level cadre of Group 1/2//3 grade officer)
Incentives	There is no provision for any performance based incentive either for commissioner or any other staff member			
No. of wards	65	60	48	13
No. of Councilors	85	60	192	52
Legislative head	Mayor is elected from one among the councilors for 5-year term	Mayor is elected from one among the councilors for 5-year term	Mayor is elected from one among the councilors for 2.5-year term	President is elected from one among the councilors for 2.5-year term
No. of Committees	5 specific committees including the key one being the Finance & Contracts Committee	Finance & Contracts Committee, and Property Tax Committee are the regular ones, others are adhoc	12 special committees for each function including Standing ⁹ Committee The Standing Committee meets every week	12 committees including Standing Committee, planning and others related to planning and various services provided by the city
Audit	Internal audit/ pre-audit is done by internal team and final audit by Local fund Examiner of local fund (but audit is not timely)	Internal audit/ pre-audit is done by internal team and final audit by Local fund Examiner of Local fund (but audit is not timely)	Pre-audit is done by internal team and final audit by Local fund audit (but audit is not timely)	Pre-audit is done by internal team and final audit by Local fund audit (but audit is not timely), currently inspection audit for the period 2015-2019 is going on, this is a regular feature but periodicity is not fixed

Source: Respective census information and information from the city websites.

9 The standing committee is one of the twelve statutory committees and is one of the most powerful committees. It has the powers to sanction and award major works. It is also vested with financial powers; no work can be undertaken without the approval of standing committee.

Service delivery by municipal department

As indicated in Table 3, water supply & sewerage and SWM are directly provided by ULBs. As this is the case across selected cities for diagnostic study, various aspects of institutional structure for these services are discussed below.

Descriptions of service and organization structure

In both the states under consideration, water supply & sewerage and SWM services are provided by the department of ULB itself. In the case of municipalities, major capital works of water supply & sewerage are undertaken by a state nodal agency. Structure of organization and governance in all four cities is discussed below.

Service	Punjab	Gujarat
Organization structure of water supply & Sewerage	<p>Amritsar</p> <ul style="list-style-type: none"> ▪ Municipal Corporation of Amritsar (MCA) provides both water supply and sewerage services¹⁰; ▪ Within MCA, the water supply & sewerage department is responsible for providing both the services; ▪ The engineering staff of the department is recruited from the respective state cadres; any recruitments of the rank of junior engineer and above need to be approved the Department of Local Government; and ▪ The staff may be transferred from one city to another within their respective cadres as per the decision of the state government. Thus, the department within the local body is institutionally not ring-fenced. 	<p>Ahmedabad</p> <ul style="list-style-type: none"> ▪ AMC is wholly responsible for providing water supply and sewerage services, provided its water projects department; ▪ The city engineer heads department of water project, water operations and drainage and reports to the municipal commissioner; ▪ The organizational structure is proposed by the municipal corporation and approved by the state government. Once approved, the corporation is totally empowered to recruit the staff without any intervention from the state government; and ▪ As staff is recruited by AMC, they are not transferable from one corporation to another, but there may be transfers within AMC departments. For any promotions, 60% of the vacant posts need to be filled by internal staff, while the remaining 40% are open for external candidates.
Governance of water supply & sewerage	<p>Amritsar</p> <ul style="list-style-type: none"> ▪ There are no established mechanisms to define clear performance targets to be achieved by the department, either in the form of a performance contract or a memorandum of understanding; and ▪ However, the local body reports the annual service-level benchmarks (SLB) indicators, primarily to receive Central Finance Commission grants. 	<p>Ahmedabad</p> <ul style="list-style-type: none"> ▪ There are no established mechanisms to define clear performance targets to be achieved by the department, either in the form of a performance contract or a memorandum of understanding; and ▪ However, the local body reports the annual service-level benchmarks (SLB) indicators, primarily to receive Central Finance Commission grants.

10 Prior to 2013, for Amritsar, PWSSB used to undertake capital works and hand it over to the MCA for O&M, for undertaking the capital works PWSSB used to levy a fee of 14% of the project cost. Currently this rate is reduced to 6%, which is closer to industry norms.

Service	Punjab	Gujarat
Organization structure of water supply & sewerage	<p>Patiala</p> <ul style="list-style-type: none"> In MCP, the O&M Department of the Engineering Division is responsible for provision of water supply and sewerage services; The Superintending Engineer heads the Department and reports to the municipal commissioner; Commercial operations' responsibilities for water supply and sewerage (billing and collection) rest with the water supply and sewerage department. The department is headed by a superintendent who in turn reports to the Joint Commissioner. The superintendent is assisted by a team of inspectors and clerical staff; and <i>Except for the above, the organization and governance structure of Patiala is like MCA.</i> 	<p>Nadiad</p> <ul style="list-style-type: none"> The municipal engineering department is headed by a chief engineer who is appointed by the NNP; NNP is empowered to recruit within the approved structure/posts, so that establishment costs of NNP does not exceed 48% of NNP's own source income, however as a practice municipal council inform the Commissioner of CMA for any recruitment; The appointed staff are only transferable within the departments of NNP. The chief engineer is appointed by the CMA, but in case of NNP, the chief engineer was appointed by NNP and he has been heading the department for the last 25 years; The promotions are decided based on seniority, education, and available vacancies in higher positions. The first preference for promotion is given based on seniority, followed by educational qualification. Decisions on promotions are taken by a committee comprising the sub- magistrate–Kheda district, chief officer, standing committee members and president; and As different from AMC, in NNP, planning, designing and execution of large capital works for water and sewerage are carried out by GUDC or GUDM; only minor capital works are undertaken by NNP.
Governance of water supply & sewerage	<p>Patiala</p> <ul style="list-style-type: none"> Same as in Amritsar 	<p>Nadiad</p> <ul style="list-style-type: none"> Same as in Ahmedabad
Solid waste management		
Organization and governance structure of SWM	<p>Amritsar</p> <ul style="list-style-type: none"> SWM service is provided by the health department in MCA. The health department is headed by the medical officer; 	<p>Ahmedabad</p> <ul style="list-style-type: none"> The salient features of Ahmedabad's SWM are¹¹ as follows; SWM is the responsibility of the SWM department headed by the director.

11 4100 metric tons of waste is generated daily including 1,000 tons of construction and debris waste, with only 50% treatment and processing capacity:

- Streets are swept daily; 50% of waste is generated from street sweeping;
- 1.6 million residential and 0.57 commercial units are covered through door-to-door collection, involving about 866 vehicles, and starting from 7.00 AM;
- Corporation has provided two bins free of cost to each household for source segregation, but in practice two bin system is not followed by residents;
- AMC has contracted daily collection and transportation of bio-medical waste from four municipal hospitals, referral hospitals, and 79 urban health centres to the incineration plant. The contracts have been given to GPCB-approved and authorized contractors (Medicare Environmental Management Pvt Ltd and Pollucare Bio Medical Waste Management Pvt Ltd); and
- There are eight transfer stations, each of about 400 MT capacity, and one automated 100 metric ton material recovery facility (MRF).

Service	Punjab	Gujarat
	<ul style="list-style-type: none"> ▪ The sanitary inspectors are recruited from the respective state cadres and can be transferred to other municipal corporations by the state government; ▪ MCA has entered into a contract for providing integrated services of door-to-door collection (except in the old and congested walled city for which MCA is responsible), waste transportation, treatment, and disposal. The contract documents were prepared by PMIDC. The work is monitored by MCA and the contractor paid by MCA; and ▪ As in case of water supply, the department does not have to report annual performance targets, except for service level benchmarking indicators reported for Central Finance Commission grants. However, in case of PPP projects or activities out sourced to private operators the performance/monitoring standards would be defined, (e.g., in case of Amritsar SWM private operator contract- tipping fee is paid based on quantity of waste lifted). 	<p>The director is assisted by sanitary inspectors and other technical staff. The corporation is empowered to recruit the staff without any state government approval, but the staffing structure needs to be approved by the state government;</p> <ul style="list-style-type: none"> ▪ There are no mechanisms to define clear performance targets to be achieved by the department either in the form of performance compact or a Memorandum of Understanding. The service levels being reported by city are as per the service-level benchmarking framework, primarily to receive the Central Finance Commission grants; ▪ AMC has engaged the private sector for this service provision. The contracts are for: (i) door-to-door collection; (ii) treatment of debris; and (iii) three separate contracts for municipal solid waste treatment and disposal. Only the composting plant contract is operational, the other two contracts for waste-to-energy are not operational; and ▪ As in case of water supply, the department does not have annual performance targets to be reported except for the service-level benchmarking indicators reported for Central Finance Commission grants.
<p>Organization and governance structure of solid waste management</p>	<p>Patiala</p> <ul style="list-style-type: none"> ▪ The SWM service is provided by the Health Department in the MCP. The Department is headed by the Chief Sanitary inspector, who reports to the Joint Commissioner and is assisted by the Sanitary Inspector, Supervisors, and Waste Collectors. The Sanitary Inspectors are also recruited from the respective state cadres and can get transferred to other municipal corporations by the state government; ▪ The MCP has engaged three private agencies for SWM; <ul style="list-style-type: none"> • The first contract is for provision of integrated services of door-to-door collection (operator collects from users, in case a user does not pay for over 3 months, the corporation compensates for the same, so there is no income and expenditure to MCP for door-to-door collection activity, 	<p>Nadiad</p> <ul style="list-style-type: none"> ▪ SWM (i.e., collection, segregation, transport, and disposal) is the responsibility of the Sanitary Department of NNP, headed by the Chief Sanitary Inspector; ▪ NNP has been divided into seven zones for provision of SWM services. The Chief Sanitary Inspector is assisted by Sanitary Inspectors and Sanitary Supervisors in each zone and a Supervisor for dumping site and safai kamdars; ▪ As in the case of water supply, the department is empowered to recruit within the approved posts, provided the total establishment costs of NNP does not exceed 48% of NNP's own source income; ▪ The responsibility of treating and processing waste rests with the Engineering Department of NNP. Such works are executed by the Chief Engineer of the Engineering Department;

Service	Punjab	Gujarat
	<p>it is to be noted that income generated from recycling of waste also goes to door-to-door collection contractor;</p> <ul style="list-style-type: none"> • The second contract is for processing and disposal of waste collected in the MCP area from public places and street sweeping, under this contract, the agency is paid per tonnage of waste collected (so expenditure is incurred to MCP). In this case MCP pays tipping fee for lifting of garbage from secondary points to compost facility; • The third contract is for processing and disposal of bio-medical waste in MCP. Under this contract as well, the agency is paid per tonnage of waste. This contract is under the purview of the Pollution Control Board, a state government agency); and • The department is not institutionally or financially ring-fenced. The department does not have annual performance targets to be reported except for the service-level benchmarking indicators reported for availing of the Central Finance Commission grants. 	<ul style="list-style-type: none"> ▪ There are no mechanisms to define clear performance targets to be achieved by the department either in the form of service compact or a Memorandum of Understanding. The service levels being reported are as per the service-level benchmarking framework, primarily to receive the Central Finance Commission grants; and ▪ The Government of Gujarat is facilitating development of cluster based sanitary landfill sites to create a basket of financially viable projects.

Legal and institutional arrangements

In the case of Gujarat, the Bombay Provincial Municipal Corporation Act, 1949 (hereinafter referred to as the BPMC Act), with a focus on Chapter IV on Appointment of Municipal Officers and Servants, Chapter VI on Municipal Functions, Chapter VIII on Contracts, Chapter X on Borrowing Powers and Chapter XI on Municipal Taxation obtain? The Gujarat Municipalities Act, 1963 (hereinafter referred to as the GM Act) with a focus on Chapter III on Appointment of Municipal Officers and Servants, Chapter IV on Contracts and Municipal Accounts, Chapter VI on Municipal Functions and Chapter VIII on Municipal Taxation prevail.

The other Acts which have an interface with the urban sector are the GWSSB Act, 1978, and laws related to borrowings.

Under Section 293-1, the Constitution of India confers upon state governments, powers to borrow within the territory of India using Consolidated Fund of the state as security. It also provides for the state governments to set limits on such borrowing, which may be fixed by the state legislature by law. These limits may also include guarantees given by the State. In case of municipal borrowings, permission from the state government is mandatory.

In the case of Punjab, the following three Acts govern the functioning of municipal services: (i) Punjab Municipal Corporations Act, 1976; (ii) Punjab Water Supply and Sewerage Board Act, 1976; and (iii) Punjab Regional and Town Planning and Development Act, 1995.

The other salient features of legal and institutional arrangements of Punjab and Gujarat are discussed below.

Service	Punjab	Gujarat
Organizational aspects	<ul style="list-style-type: none"> ▪ In Punjab, in the case of municipal corporations, the Municipal Commissioner is the CEO is, who is appointed by the state government. The municipal staff reports to the Commissioner. The Mayor may give directions to the Commissioner from time to time, but this is discretionary. The Mayor has no other authority over the city's executive officials and staff; ▪ The staffing structure needs to be approved by the state government and further approval is required for any new post; ▪ The local governments have autonomy only to recruit staff below the rank of junior engineer; ▪ Staff members are transferable across the local bodies; and ▪ Several state-level agencies are active in Amritsar. These include PMIDC, PIDB, BRTS, and PUPDA for urban planning. 	<ul style="list-style-type: none"> ▪ In Gujarat, in the case of municipal corporations, the Municipal Commissioner is the CEO, and formally reports to Gujarat's UD&UH. In practice, the Commissioner works closely with the city's elected representatives. All city staff report to the Commissioner. However, for all policy related aspects the Commissioner works in close coordination with elected representatives (General Board) and any work has to be approved by the general board; ▪ In Gujarat, municipal corporations can recruit within the approved structure. Municipal councils can recruit within the approved structure provided the total establishment cost is below 48% of their own source income; ▪ In Gujarat, the local body staff members are not transferable across local bodies, but they rotate within the local body departments; ▪ As far as municipal corporations are concerned, they do not have reporting obligation to any of the state level nodal institutions (GUDC, GMFB, GUDM etc) for project design, approval as these agencies are only nodal agencies for implementation and monitoring of state and central government sponsored projects. As far as municipal councils are concerned, it is also the same, except that they have to report to the CMA for all administrative aspects and approvals; and ▪ Though the commissioner prepares budget, it needs to be ratified by the Standing Committee, and for accounting purposes all budget items are coded. Hence, there is scope for ring fencing, but spending is based on budget and not on income from a particular service.
Project planning and maintenance	<ul style="list-style-type: none"> ▪ All proposals need to be passed by the municipal corporations and forwarded to the department of local government for final approval; ▪ The local bodies can vet proposals up to INR 5 million, but final approval lies with the department of local government; 	<ul style="list-style-type: none"> ▪ All functions that are delegated to local bodies are decided by the general board of municipal corporations and they do not need approval from state governments except in matters related to institutional structure, for borrowings, and for acting on land use plans; ▪ The elected officials can only approve, but final clearance rests with the Commissioner. Hence, they cannot be said to be driving the municipal administration;

Service	Punjab	Gujarat
Finances	<ul style="list-style-type: none"> ▪ The annual budget is to be submitted to the department of local government for approval; ▪ Any expenditure above INR 10 million (currently this limit works out to 0.3% and 1.1% of the MCA's and MCP's revenues, respectively) needs to be approved by the department of local government; and ▪ Any tariff proposal and revision need approval from department local government/state government. 	<ul style="list-style-type: none"> ▪ The Commissioner prepares the budget based on estimates received from all departments, but the final approval needs to be accorded by the general board. ▪ With regards to municipal corporations, executive sanction power for capital works is vested in the Municipal Commissioner, who further delegates the same to other staff as per the provisions of the BPMC Act; ▪ For any expenditure, approval from the standing Committee and General Board of municipal councils and municipal corporation respectively is necessary for implementation of any project. ULBs can implement a project based on this approval if the project is being funded from own sources of a ULB. Further, state or central government approval is necessary for projects launched under a state or central scheme; ▪ But for any expense item outside budget the sanctioning power of the Commissioner is fixed at INR 5000 only as per Section 73 (c); ▪ In the case of Municipality, for any item outside the budget, the Chief Officers of the Municipalities can sanction works of not more than INR 1,000 (Section 65-4 (c)); ▪ While the sanctioning power of the Municipal Commissioners and Chief Officers are limited as per respective Acts, for day-to-day expenses (exceeding the sanctioned limit), the Municipal Commissioner and Chief Officer can take approval from Standing Committee and General Board respectively; ▪ The local government is empowered to revise taxes, tariffs, and fees without securing approval from the state government; ▪ In case of environmental services, the local authorities can frame bylaws to levy, or raise user charges. Any changes to the bylaws must be resolved by the municipality and should get prior approval from the Commissionerate of Municipalities; ▪ No bylaw or cancellation of bylaws can be affected without approval of the state government; ▪ The state government has been encouraging ULBs to introduce user charges in municipalities. State government has initiated a process to fix a minimum rate for user charge to be charged by all ULBs for various urban services, to cover operation and maintenance cost; and

Service	Punjab	Gujarat
		<ul style="list-style-type: none"> As regards powers of the local body, there are no major constraints on the municipalities to take up any capital schemes covering any item in the obligatory and discretionary lists of functions as well as schemes. Municipal corporations also have powers to undertake any work without any cap on the total amount, provided the organization's finances permit it.

Oversight, autonomy, and accountability

Service	Punjab	Gujarat
Oversight	<ul style="list-style-type: none"> Indirectly the state has an oversight function on local bodies as the Municipal Commissioner is appointed by and reports to state government; and Similarly, chief officers of a municipal council report to department of local government, hence indirectly there is oversight function of state on all local bodies. 	<ul style="list-style-type: none"> Gujarat follows the same system as Punjab in matter of state government oversight. But in the case of Gujarat, for local body related aspects the general board is the final and the state government role is limited; and In the case of municipal councils, the district collector and the commissioner of CMA have oversight functions.
Autonomy	<ul style="list-style-type: none"> All proposals need to be passed by the municipal corporations and are forwarded to the Department of Local Government for final approval; The Mayor is the ceremonial head, but for all practical purposes, the minister in charge of the department or the state legislature is empowered to take policy decisions; In Punjab, the local bodies do not have autonomy to recruit any staff; All resolutions passed by the municipal corporations need to be approved at the state government level by the Department of Local Government. Thus, the elected wing does not enjoy autonomy to take final decisions on local policy matters; Property tax rates are determined and revised by the state government; Municipal corporations require approval of the state government to undertake any borrowing; Rates of water tax, which are levied as a part of property tax, are decided by the state government; and 	<ul style="list-style-type: none"> All local policy matters are decided by the general board of municipal corporations and this body does not require the state government's approval except in matters such as defining the institutional structure, undertaking borrowings, and acting on land use plans; It is to be noted that the president of the municipal council holds more executive powers than the mayor of municipal corporations; If a project is to be executed under a state government grant, then technical sanction must be taken from GWSSB on the designs prepared by the city, before commencing project implementation; The water works committee can approve expenses up to INR 2,000; for expenses above INR 2000, council's approval is required. However, all the decisions rest with the standing committee. Projects are approved by the Standing Committee; this Committee is also responsible for SWM; The Chief Officer and President can decide on internal transfers of employees appointed by the municipality;

Service	Punjab	Gujarat
	<ul style="list-style-type: none"> ▪ Similarly, exemptions in both water tax and water charges linked to consumption, are decided by the state government. 	<ul style="list-style-type: none"> ▪ The local government has powers to recruit staff for all approved posts; no additional approvals are required from state government if the post has been approved by the state government. The staff of the local government is not transferrable. For all new promotions, 60% of the posts need to be filled from internal staff; remaining 40% can be external candidates; ▪ The local government is empowered to revise taxes, tariffs, and fees without the state government's approval. The local government is also empowered to approve expenditure without limits. But approval is required from the state government if any borrowing is to be undertaken; ▪ For any revision of taxes, fees and charges, citizens' views are not sought. In case of any increase in taxes and subsequent protest by citizens, sometimes the charges are revised downwards to pacify the protesting citizens. By and large, no inputs are taken from citizens while formulating tariff or tax policy; and ▪ Bylaws concerning SWM are approved by council, but currently there are no SWM bylaws within NNP.
Accountability	<ul style="list-style-type: none"> ▪ As far as O&M is concerned, in most cities across India, whenever there is inordinate delay in attending to any service-level issue, if any neighborhood-level influential resident or a president of resident welfare associations makes a call to the concerned elected ward council member, action is taken immediately. However, in the case of capital works, it takes some time. The elected representative influences the concerned people to expedite action; ▪ In India, citizen or community participation in planning and implementation of works is rare. Legally, only in the case of land use master plans, authorities call for objections and suggestions from citizens before finalizing the plans, though it is not mandatory to incorporate the citizens' views.; ▪ In recent years, for projects sponsored by the national government as part of urban sector programs like JnNURM, Smart city and AMRUT, communities/citizens' inputs 	<ul style="list-style-type: none"> ▪ The president of municipal council is empowered to monitor financial and executive administration of the municipality and to perform executive functions as per the legal framework; ▪ In some cities Mayor/Chairperson/President conduct citizen meetings, wherein they note down complaints of citizens. This is not a legal requirement, but done for political gains; ▪ Sometimes, ward members also visit localities and neighboring resident welfare associations (RWA) to learn about problems faced by citizens/residents; ▪ The president is also empowered to exercise supervision and control on the executive staff of the municipalities and can set aside or modify any order of the chief officer. The mayor of municipal corporations may propose development works but has no defined control over the executive wing;

Service	Punjab	Gujarat
	were sought during project preparation through online suggestions, focussed group discussion, and expert opinions. Otherwise, their involvement is limited.	<ul style="list-style-type: none"> ▪ The department must conduct fortnightly or monthly meetings with the chief officer and the president of the municipal council about progress of the water supply projects executed by the department, and citizens are not involved in such meetings; ▪ The ward committees, with assistant city engineer as ward officer, comes up with projects for the particular ward, and in principle sanction for any project is taken from the municipal commissioner, which is forwarded to the Standing Committee, they discuss the budget, even views of ward councilors are taken into account; and ▪ Water works committee has been established, the water works committee must be kept informed about water works and they will decide if the project is in the best interest of the city.

Finances

As observed from Annexure 4.3, in almost all cities, grants are the major source of income, some tied and some untied. Thus, India's cities have limited fiscal and financial autonomy. In raising resources and introducing/ revising taxes/charges, most cities depend on approval from state governments. As observed from above section, local bodies do not have complete autonomy in raising resources and in most cases, need approval from state government, this is particularly observed in state of Punjab, though Gujarat local bodies have autonomy once the rules are defined.

Service	Punjab	Gujarat
Water supply & sewerage	<p>Amritsar</p> <ul style="list-style-type: none"> ▪ MCA does not have a separate account for water supply and sewerage operations and hence the department's revenues are not ring-fenced; ▪ Amritsar funds its capital investments in water and sanitary sewer services through grants from national and state sources, and from its own reserves; ▪ Between 2014-15 to 2018-19, average cost recovery of water supply and sewerage department of MCA was only 17%¹² 	<p>Ahmedabad</p> <ul style="list-style-type: none"> ▪ AMC does not have a separate account for water supply and sewerage operations and hence the department's revenues are not ring-fenced; ▪ The water supply and sanitation projects of AMC are funded by own funds (budgetary allocation), state and central government sponsored projects like (AMRUT/Smart City etc.). AMC also funds projects through multilateral borrowing;

12 Income and expenditure of Amritsar water supply and sewerage account

Year	Income	Expenditure	Cost Recovery
	INR million		
2014-15	142.6	673.0	21%
2015-16	120.7	792.3	15%
2016-17	141.3	847.1	17%
2017-18	150.1	859.7	17%
2018-19	141.7	869.7	16%
Average			17%

Service	Punjab	Gujarat
	<ul style="list-style-type: none"> To address this cost recovery issue, MCA has considered the proposal made by a consultative group of PMIDC/CE (O&M)-2018/5346-47, dated 29/05/2018, which gave following suggestions for better cost recovery. As per above mentioned consultative group of PMIDC 2.5% of 11%¹³ (22.72% MCA GST transfer) of the GST transfer revenue should be assigned to the water supply and sewerage account; In addition, the 2% surcharge levied on electricity bill collected by the state electricity department is transferred to the water supply department of the local body; The deficit is funded from the general funds of the municipal corporation; The corporation is empowered to decide water tariffs¹⁴, i.e., water charges are linked to consumption; and During FY 2019, the department recovered only 20% and 15% of O&M cost of water supply and sewerage respectively. Low cost recovery is also on account of poor collection performance. <p>Patiala</p> <ul style="list-style-type: none"> There is no separate fund for water supply and sewerage operations of the corporations, and it is not financially ring-fenced. Patiala funds its capital investments in water and sanitary sewer services through grants from national and state sources, and from its own reserves. In FY 2019, the department reported 53% and 86% of O&M cost recovery for water supply and sewerage, respectively. The corporation is empowered to decide on 	<ul style="list-style-type: none"> AMC levies no user charges for water and sewerage. The corporation is empowered to decide the water tax rates that are levied as part of the property tax. Currently, additional amount of 30% is collected as water tax and additional 30% is collected towards conservancy tax. The corporation has been able to achieve cost recovery of 58% and 32% for water supply and sewerage, respectively; and Currently, AMC draws 850 million litres per day of water from Narmada Canal and as per the Gujarat government order, AMC must pay for raw water and the rate shall be increased annually by 10%, which would further impact the cost recovery as property tax is not revised annually. The property tax rate was last revised in 2005, the deficit is growing and is being funded from the general fund of the corporation. <p>Nadiad</p> <ul style="list-style-type: none"> In Nadiad, the municipal corporation is empowered to levy both water tax and drainage tax; The water tax levied is an annual flat rate and differs with consumer categories¹⁵; The drainage tax is calculated based on area of property and building use¹⁶; Approval from the Commissioner of Municipalities is mandatory for any revision of water tax or drainage tax. These tax rates were last revised in 2008; The water supply and sanitary projects of NNP are funded by own funds (budgetary allocation), state and central government sponsored projects like (AMRUT), grants from GUDM or GUDC for specific projects sponsored by state in the form of grants; and

13 In case water supply and sewerage services are provided by PWSSB, this amount in addition to the user charges collected by municipal corporations, is transferred to PWSSB.

14 In Amritsar, for domestic users' water tariff is charged on flat rate basis, depending on the area of the property. Any property with area below 50 square yards and with monthly consumption below 10,000 litres, is exempted from water and sewer tariff. All non-domestic users and domestic users with property area above 500 sq.yds are charged on volumetric basis. In addition, users with sewerage connection need to pay sewerage charge equal to 100% of water bill.

15 Nadiad water: It is flat rate per annum based on category of users:

- Residential connection: INR 600;
- Non-residential connection: INR 1200; and
- Hotel/Hospital/Theatres: INR 1800.

16 Nadiad drainage tax

Area of the property	Residential - INR	Non-residential - INR
Up to 75 m ²	250	800
75-100 m ²	350	1200
>100 m ²	500	1600
Hospital/Hotel/Etc.	-	2000

Service	Punjab	Gujarat
	consumption-based water tariffs ¹⁷ . However, currently with the extent of metering at only 13% of connections, rest connections are charged on basis of water tax ¹⁸ which is linked to property tax and needs state government approval. In addition, certain connections are exempted.	<ul style="list-style-type: none"> NNP has been able to achieve 53% O&M cost recovery in water supply and 32% O&M cost recovery in sewerage services. The balance cost is funded from the corporation's general fund. Neither of the departments are financially ring-fenced.
Solid waste management		
Solid waste management	Amritsar <ul style="list-style-type: none"> User charges are levied on residential and commercial properties. As per the state's SWM byelaws, the state government has prescribed the charges for various types of properties and an annual increase of 5% is allowed. No separate fund has been created for SWM operations. The private operator is paid a tipping fee from the Corporation's general fund and can collect user charges. The department is not institutionally or financially ring-fenced. This charge is payable by all users in the defined area where the private operator collects waste; individuals have no option to make their own arrangements; Amritsar has funded its capital investments in SWM services through grants from national and state sources, and from its own reserves as approved by the council; Door-to-door collection is undertaken by MCA only in the walled city area. The department was able to recover only 5% O&M costs (the cost includes tipping fee payable to private operator, expenditure towards establishment and O&M for door-to-door collection in walled city area). Though private operator carries out door-to-door collection in the walled area, in rest of the city, service-level responsibility still lies with the municipal corporation; and 	Ahmedabad <ul style="list-style-type: none"> AMC levies user charges for door-to-door collection of SWM. Currently, AMC charges INR 30 per month and INR 60 per month for domestic and non-domestic properties respectively, to meet the cost of primary collection; The rates are decided by the standing committee of corporation¹⁹. The corporation has reported O&M cost recovery of 31%. The balance cost is funded from the general fund of the corporation. The department is not financially ring-fenced; and The SWM projects of AMC are funded by own funds (budgetary allocation), state and central government sponsored projects like (Swachh Bharat Mission etc.). Nadiad <ul style="list-style-type: none"> A general sanitation tax is collected from each property annually, the tax rates must be approved by the Commissioner of Municipalities. NNP has reported O&M cost recovery of 10%. The balance of the cost is funded from the municipal fund. The department is not financially ring-fenced; NNP had engaged with the private sector for collection, segregation, transport, and disposal of solid waste. However, due to

17 In Patiala, water charges are charged as per Notification No. 2/2/2003-3LG IV/6510 dated. 02.05.2003. Later, 12 sq. yd residential houses' connections were exempted vide Notification No. 8/22/06-1LG IV/3398 dated. 11th June 2006. The charges were not revised since 2007-08.

18 Patiala water & sewerage tariff (1 sq. yd = 0.83 m²)

Area of the property	Water tariff -domestic - INR/month	Sewer tariff -domestic - INR/month
Up to 12 sq. yd	100	70
12-24 sq. yds	105	105
24-48 sq. yds	140	140
>48 sq. yds	Only metered @ INR 3.80 KL	100% of water tariff
Non-domestic.	Double the domestic tariff	Double the domestic tariff

19 The current rates accord with the Standing Committee's Resolution No. 08/994/2018-19, dated 10th September 2018. As per this order, the daily door-to-door collection charges are INR 0.50 for EWS housing, INR 1 for residential properties, and INR 1 and INR 2 for non-domestic properties with area below 50 m² and above 50 m², respectively.

Service	Punjab	Gujarat
	<ul style="list-style-type: none"> The remaining expenditure is funded through the general fund of the corporation. <p>Patiala</p> <ul style="list-style-type: none"> As mentioned earlier, service charges for SWM are collected by the private operator and no portion of these charges is shared with MCP. The department has reported 77% O&M cost recovery, but this cost recovery data needs validation; Patiala has funded its capital investments in SWM services through grants from national and state sources, and from its own reserves; and O&M expenditure of the department for collection of waste includes sweeping of public spaces and streets, and payment made to private operators engaged in waste disposal. The deficit is funded through the general fund of MCP. 	<p>poor performance of the contractor and frequent complaints recorded by citizens in the complaint register or made to the Sanitary Department regarding service delivery of the contractor, the contract was terminated in 2016. Since then, NNP has been providing these services; and</p> <ul style="list-style-type: none"> In NNP SWM projects are funded by own funds (budgetary allocation), state and central government sponsored projects like (Swachh Bharat Mission etc), project specific state grants routed through GUDM or GUDC.

Transparency and citizen participation

Citizens are vital stakeholders in urban governance. Two mechanisms envisaged to increase civic participation and local ownership were to elect city councils and ward committees. The 74th Constitution Amendment Act of 1992 mandated the formation of ward committees under municipalities in Indian cities to decentralise power to local levels. The Community Participation Law introduced the concept of area sabhas (groups of local residents), which are linked to ward committees and comprise all registered voters in a polling booth (similar to a gram sabha). Despite these constitutional provisions for devolution of power, implementation on the ground has remained a distant dream. Several states have enacted the Community Participation Law and constituted ward committees, but of India's major cities, only Hyderabad and Guwahati have constituted area sabhas in all wards. Even then, no city in India has functioning ward committees or area sabhas city-wide.



In the state of Delhi, the Bhagidari scheme, launched in 2000, sought to improve the quality of life by promoting a partnership between the government and the citizens. Under the scheme, partners, or Bhagidars, were enlisted to collaborate with government agencies in identifying and solving urban issues. However, the process of implementation was completely top-down. Facing significant resistance, the government failed to fully institutionalize the scheme. Another example was Delhi's BRT project, which failed because citizens were not on board with its top-down implementation. In Mumbai too, the top-down approach of the 2003 "Vision Mumbai" encountered immense criticism from civil society.

The Great Indian Debate, Mr. Kunal Kumar, December 2020



Transparency and citizen participation aspects are presented through compliant redressal approach (Refer Table 4), city feedback in policy and planning.

Punjab	Gujarat
<p>MCA maintains both manual and online complaint register systems. In addition, they have toll-free number for registering complaints:</p> <ul style="list-style-type: none"> In a recent month, they have received 197 and 118 complaints for water and sewerage respectively. As indicated by MCA, about 98% of the complaints are resolved within four hours. As far as SWM complaints are concerned, 193 complaints were registered on Swachhata web portal and 121 through toll free number; it is indicated by MCA that 100% complaints were resolved (within 30 days). 	<p>AMC maintains a comprehensive complaint redressal system (CCRS), which is a web-based enterprise solution that allows the corporation to enhance citizen satisfaction through comprehensive service management and efficient service delivery:</p> <ul style="list-style-type: none"> CCRS automates the entire complaint process, right from registration to closure. It also enforces service-level policies to ensure the complaint gets attended within the desired timeline or gets escalated to higher authorities for their attention and intervention. Citizens can lodge complaints through a call centre, website or by visiting a ward office. At the call centre or ward office, an operator registers a complaint within the system with all necessary details. A complainant can lodge single or multiple complaints during a single call. In all cases, the complainant is given a complaint acknowledgement number; Once a complaint is registered within the system, it is assigned to a concerned area officer dealing with the reported problem. The system automatically sends an SMS to the officer alerting him to take required action. The officer calls up the complainant, if necessary, to seek specific details; The officer is expected to resolve the complaint within a specified period. Once a complaint is resolved, the officer marks the complaint as closed in the system. The citizen receives an SMS confirming the resolution of his/her complaint. If the citizen is not satisfied, he/she can request to re-open the complaint, which is then escalated to a higher authority; and If the complaint is not resolved and not closed within the specified period, the same gets automatically escalated to higher authorities. On repeated failures to resolve the problem, it gets escalated to the Deputy Commissioner. The advantages of CCRS are: <ul style="list-style-type: none"> Citizens need not visit ward office to register their complaints; System available round the clock - Call centre, website, SMS, email, IVR, ward offices and mobile applications; Improved communication by way of SMS/Email alerts; CCRS provides data of frequent complaints and average turnaround time for each kind of problem. It helps municipality/corporation to focus on improving services by enhancing manpower and infrastructure. This also helps the municipality/corporation to prioritize on their services; and

Punjab	Gujarat
	<ul style="list-style-type: none"> AMC has ward committees, the ward officer, who is the Assistant City Engineer of AMC, comes up with projects from his particular ward based on feedback from citizens.
<p>MCP maintains both online and offline complaint registers:</p> <ul style="list-style-type: none"> On an average, MCP receives about 1,500 complaints per month; majority of these complaints are resolved within 24 hours and the average time to resolve a complaint is about 1.25 days. 	<p>NNP maintains an offline complaint register through application, calls, and direct messages to assistant engineer:</p> <ul style="list-style-type: none"> The register capture details of the complainants, issues, and location of the issues; After addressing a complaint, the concerned lineman must sign in the register; Frequent complaints lodged by citizens are about: <ul style="list-style-type: none"> low water pressure – arising due to increasing number of connections; less water quantity and decreasing water pressure; water pollution – water mixed with sewage; and leakage. The department reports to the chief officer about complaints received and redressed, every month; In case the issue is not resolved, the complainant meets the chief officer; and NNP receives about 25 complaints daily; 90% of complaints are redressed within 24 hours.

TABLE 4 COMPLAINT REDRESSAL DATA OF SELECT LOCAL BODIES

Sector	In any typical month - No. of complaints received	% complaints resolved within 24 hours	Average number of days for resolution (in days)
Ahmedabad Municipal Corporation			
Water supply	NA	NA	NA
Sewerage	NA	NA	NA
SWM	NA	NA	NA
Nadiad Municipal Council			
Water supply	475	100%	1.0
Sewerage	450	100%	1.0
SWM	260	100%	1.0
Municipal Corporation of Amritsar			
Water supply	176	98 %	2-4 hrs (One day)
Sewerage	118	98%	2-4 hrs (One day)
SWM	193 compliant on Swachhata Portal and 121 complaints on Tollfree Number	100 %	Within the month

Sector	In any typical month - No. of complaints received	% complaints resolved within 24 hours	Average number of days for resolution (in days)
Municipal Corporation of Patiala			
Water supply	278	78%	1.25
Sewerage	1192	79 %	1.24
SWM	NA	NA	NA

Source: Respective local body.

Outcomes

Service delivery indicators

Services provided by Indian ULBs have been assessed, based on the service-level benchmarking (SLB) framework formulated by the MoHUA, Government of India²⁰.

TABLE 5 SLB INDICATORS – WATER SUPPLY AND SEWERAGE

Performance indicators	Unit	Benchmark	Amritsar	Patiala	Ahmedabad	Nadiad
Water supply						
Population covered by direct supply	%	100	80	80	98	100
Per capita supply	LPCD	135	135	130	142	95
Extent of metering	%	100	20	13	0	0
Non-revenue water	%	15	25	30	22	11
Quality of water supplied	%	100	100	100	97	100
Daily hours of supply	hours	24	13	12	2.5	3
Cost recovery	%	100	20	100	58	53
Efficiency in collection of user charges	%	90	70	85	67	77
Sewerage						
Coverage of toilets	%	100	70	80	100	100
Coverage of wastewater network	%	100	80	98	93	67
Collection efficiency of wastewater network	%	100	60	49	94	69
Adequacy of wastewater treatment capacity	%	100	60	80	95	90
Quality of wastewater treatment	%	100	100	95	90	100
Extent of reuse and recycling of wastewater	%	20	0	20	12	0
Efficiency in redressal of customer complaints ²¹	%	80	100	80	93	99
Cost recovery	%	100	15	100	32	32

20 Information provided by AMC for fiscal 2019 (see www.pas.org for that fiscal), SLB notification published by the Department of Local Government, Punjab, 2018-19.

21 All the service-level indicators have been drawn up by local bodies, to arrive at SLB indicators to avail of Central Finance Commission grant; the indicators have not been decided by any independent rating agency.

Performance indicators	Unit	Benchmark	Amritsar	Patiala	Ahmedabad	Nadiad
Efficiency in collection of sewerage charges	%	90	60	80	67	91
Solid waste management						
Household-level coverage of SWM services	%	100	88	98	100	100
Efficiency of collection of municipal solid waste	%	100	95	95	100	92
Extent of segregation of solid waste	%	100	10	18	14	11
Extent of municipal solid waste recovered	%	80	15	2	26	10
Extent of scientific disposal of municipal solid waste	%	100	80	92	10	0
Efficiency in redressal of customer complaints	%	80	95	40	100	100
Cost recovery	%	100	5	77	31	10
Collection efficiency	%	90	50	3	68	100

Based on the service-level benchmark indicated above, following inferences can be drawn about: (i) service reliability and quality; (ii) accessibility and penetration; (iii) financial and environmental sustainability; and (iv) efficiency.

Service	Water	Sewerage	Solid waste management
Reliability/ quality	Ahmedabad meets 95% of its water supply requirement through surface water, while the other three cities rely on ground water sources. ²² All the cities have intermittent water supply, falling short of providing it 24x7. AMC data indicates that quality of water meets 97% of samples while other three cities have indicated 100%, which may require validation.	Patiala and Amritsar have several infrastructure and service-level issues. In Nadiad, quality of service remains a challenge as only 67% of the population is covered by wastewater network. Collection efficiency and service coverage is robust only in Ahmedabad.	SWM services across the activity chain are not functioning as required, in all the four cities, especially in the case of treatment and disposal. There is good level of coverage in collection of solid waste from households.
Accessibility/ penetration	Ahmedabad and Nadiad reported 100% and 98% respectively, coverage of services, and both Amritsar and Patiala, about 80% of coverage. However, in terms of per capital supply, except Patiala (95 lpcd), all cities meet benchmark level.	Access to sanitation is a challenge in Amritsar given that about 28% of its population lives in slums. Patiala has lower levels of slum population, but still reports only 80% of the population with access to toilets. One-third of Nadiad's population is not covered by a sewerage network. Amritsar and Patiala have 60% and 80% coverage, respectively.	Patiala, Ahmedabad and Nadiad have reported high levels of coverage of SWM services. In the case of Amritsar, there have been contractual issues with the existing private operator, resulting in a lower level of coverage. Only Ahmedabad has reported 100% collection efficiency.

22 Due to depleting ground water, Patiala and Amritsar have plans to shift to surface water sources.

Service	Water	Sewerage	Solid waste management
		In terms of treatment capacity in comparison to the level of wastewater collected and conveyed to the treatment plants. All cities report good level of service, may be its primary or secondary level of service, it's unlikely that city will have 90-100% tertiary level of treatment.	
Financial and environmental sustainability	<p>Financial sustainability of the services provided is a challenge in all cities, excepting Patiala.</p> <p>Cost recovery only pertains to O&M. None of the cities have volumetric tariffs, and hence, there is no incentive for water conservation. As the connections are not metered, loss detection becomes an impossible task, and the cities are unable to capture the water balance.</p> <p>Low cost recovery coupled with less than 100% collection efficiency is impacting cash flows from water supply operations.</p> <p>In all the cities, tariffs have not been revised more than a decade.</p> <p>Amritsar and Patiala rely on groundwater to meet their water supply requirements.</p> <p>Except for Ahmedabad, all cities need to reduce dependence on groundwater and shift to surface water sources.</p>	<p>Only Patiala reported 100%²³ cost recovery of sewerage services.</p> <p>All the other cities struggle to achieve even 40% cost recovery.</p> <p>Poor collection efficiencies, inadequate coverage and inadequate tertiary treatment leads to pollution of ground and surface water, weakening the case of environmental sustainability.</p>	<p>Segregation of solid waste at source is hardly being practiced in the four cities. Extent of segregation is 10-20%. Both Amritsar and Patiala have reported high levels of scientific disposal of solid waste. This may not be totally accurate, as neither Amritsar and Patiala have operational treatment and disposal facilities. Nadiad and Ahmedabad have reported extremely low levels of scientific disposal of waste. This is a common feature of most Indian cities. Patiala has reported 77% cost recovery, the other three cities much lower levels. Patiala's revenue collection efficiency is only 3%.</p>
Efficiency	<p>Non-revenue water levels are not reliable, and the actual losses may be much higher.</p> <p>As Patiala and Amritsar plan to move to more expensive surface water sources, the transmission network needs to be well designed. The existing distribution system also needs to be strengthened, to control financial losses and loss of water resources.</p>	<p>All the cities have reported high levels of attainment in quality of wastewater treated, but this needs to be assessed regarding level of treatment provided – primary, secondary, or tertiary.</p>	<p>All the four cities have registered collection efficiency of solid waste in excess of 90%; Ahmedabad reports this factor as 100%.</p>

23 In Punjab, GST compensation paid to cities is apportioned to water and sewerage account; this could be the reason for recovery of 100% of O&M costs in Patiala.

Service	Water	Sewerage	Solid waste management
	<p>Ahmedabad has reported non-revenue water of 8% (up to the distribution reservoirs), measured using bulk flow meters.</p> <p>In all cities, majority of the connections are not metered at the consumer's end. All cities except Nadiad (11%) have reported higher levels of NRW.</p>		

Infrastructure investment indicators

Service-level benchmark is an annual process to avail of Central Finance Commission grants. In the normal course of action, investment in infrastructure provision should be directly proportional to improvement in service levels and coverage (service levels over a 5-year period between 2013 and 2019 are presented in Annexure 4.4 and investment figures over a 5-year period from 2015 to 2019 are presented in Table 6.)

If we correlate investment and SLB indicators, in the case of Ahmedabad, we observe that there is consistent investment in water supply, and service coverage and per capita supply have also improved. But efficiency indicators are inconsistent – a few have improved and a few have remained the same or declined, which indicate that efficiency could be a function of management rather than investment.

TABLE 6 CAPITAL INVESTMENTS – INR MILLION

Sector	FY15	FY16	FY17	FY18	FY19	5 year total Per capita investment
	INR million					INR
Ahmedabad						
Water supply	1,912	3,230	1,753	1,756	3,121	211
Sewerage	1,581	2,321	1,849	2,264	3,176	201
Solid waste management	225	231	38	37	25	10
Roads, streets, and bridges	4,333	4,214	3,303	3,753	5,760	383
Transport	3,749	3,805	3,925	3,931	4,042	349
Nadiad						
Water supply	452	361	474	640	623	117
Sewerage	1,007	221	515	541	780	140
Solid waste management	31	30	33	36	27	7
Roads, streets, and bridges						NA
Transport						NA
Amritsar						
Water supply			72.87		158.49	204
Sewerage						

Sector	FY15	FY16	FY17	FY18	FY19	5 year total Per capita investment
	INR million					INR
Solid waste management						
Roads, streets, and bridges						
Transport						
Patiala						
Water supply	Not available					
Sewerage						
Solid waste management						
Roads, streets, and bridges						
Transport						

Organizational performance and public satisfaction

- Among the four Indian cities, Ahmedabad reported considerably better performance on physical infrastructure coverage. It is also the only city which has a better public transportation system. Ahmedabad's slum population is reported at 4.5% of its total population, against 28.5% of Amritsar's, though the population of Ahmedabad is about 4 times of Amritsar;
- According to Knight Frank's Affordability Index 2020, Ahmedabad is also the most affordable housing market in India based on mortgage payments to income ratio for an average household; and
- The Ease of Living Index (EoLI) is an assessment tool that evaluates the quality of life and the impact of various initiatives for urban development. It provides a comprehensive understanding of participating cities across India based on quality of life, economic ability of a city, and its sustainability and resilience. The assessment also incorporates the residents' view on the services provided by city administration through a Citizen Perception Survey.

City	Slum population
Ahmedabad	4.5%
Amritsar	28.5%
Patiala	1.6%
Nadiad	13.5%

Source: Census 2011.

THE EASE OF LIVING INDEX

The EoLI 2020 strengthens its scope by consolidating the framework with the addition of a Citizen Perception Survey in the index, holding a weightage of 30%. It, therefore, examines the outcomes that lead to existing living conditions through pillars of Quality of Life, Economic Ability, Sustainability, spanning across 13 categories of -Education, Health, Housing and Shelter, WASH and SWM, Mobility, Safety and Security, Recreation, Level of Economic Development, Economic Opportunities, Environment, Green Spaces, and Buildings, Energy Consumption, and City Resilience, that account for 70% of the overall outcome.

Bhubaneshwar had the highest Citizen Perception Survey score, followed by Silvassa, Davangere, Kakinada, Bilaspur and Bhagalpur.

The Ease of Living Index report aims to measure the well-being of Indian citizens in 111 cities, across the pillars of Quality of Life, Economic-ability, and Sustainability, with 49 indicators under 13 categories. The Ease of Living Index primarily seeks to accelerate India's urban development outcomes, including the achievement of the Sustainable Development Goals.

TABLE 7 EASE OF LIVING INDEX AND MUNICIPAL PERFORMANCE INDEX

Parameter	Bangalore	Indore	Ahmedabad	Amritsar
Ease of Living Index				
Rank	1st	9th	3rd	45th
Quality of Life	55.67	59.86	57.46	51.50
Economic ability	78.82	15.09	48.19	9.46
Sustainability	59.97	61.62	64.22	57.05
Citizen perception	78.00	76.80	82.30	61.70
Overall, EoLI score	66.70	58.50	64.87	49.36
Municipal Performance Index				
Rank	31st	1st	6th	38th
Services	56.00	68.60	64.72	47.35
Finances	47.61	69.69	61.28	47.42
Technology	26.21	54.57	41.90	28.29
Planning	30.41	68.58	58.46	45.00
Governance	51.01	65.46	54.39	40.00
Overall, MPI score	45.02	66.08	57.60	42.68

Source: City Rankings 2020, MoHUA, Gol.

As per EoLI Bengaluru ranks 1st with a score of 66.70, while Ahmedabad scoring 64.87 ranks 3rd, but at the same time in terms of municipal performance Ahmedabad is 6th ranking city against Bengaluru with 31st rank, in municipal performance Indore ranks 1st, while Amritsar ranks 45th rank among 111 cities in EoLI and 38th in MPI.

- The **Swachh Survekshan** report which is published every year from 2016 onwards by MoHUA, ranks the city on various aspects of sanitation and SWM. The 2020 survey was designed to capture the institutionalization of Swachhata, while the 2018 and 2019 surveys were designed to assess the outcomes of initiatives and assess the sustainable practices, respectively. The summary of results for 2020 are given below.

TABLE 8 SWACHH SURVEKSHAN 2020 SCORE AND RANKING

Parameter	Maximum	Indore	Ahmedabad	Amritsar	Nadiad	Patiala
Rank		1st	5th	39th	113th	86th
		Out of 47 cities of > million plus population			Out of 382 cities population between 0.1-1 million	
Service-level performance	1500	1431	1367	374	601	581
External certification	1500	1300	1100	200	500	500
Direct observation	1500	1500	1493	839	1004	1208
Citizen feedback	1500	1416	1348	1046	1117	1179
Overall	6000	5648	5270	2450	3222	3467

Source: Swachh Survekshan 2020 City Rankings 2020, MoHUA, Gol.

As in the case of EoLI ranking, Swachh Survekshan also ranking Ahmedabad fares better at 5th and Amritsar 39th among the 47 million plus population cities. Similarly, among 382 cities with population between 0.1 to 1 million, Patiala and Nadiad ranks 86th and 113th, respectively.

THE MUNICIPAL PERFORMANCE INDEX 2020 (MPI)

Expanding the scope for the EoLI framework to make it more robust, a MPI assessment was also undertaken for the first time in the country. Whereas, the EoLI measures an outcome of the indicator, MPI focuses on the factors that produce those outcomes. The latter serves in determining elements that prevent efficient local governance in service delivery mechanisms, planning, financial systems, and governance practice.

The MPI is an effort to assess and analyze the performance of Indian municipalities based on their defined set of functions. The responsibilities of a municipality span across a range of verticals that include provision of basic public services to more complex domains like urban planning. The salient features of MPI are given below.

The MPI provides a granular understanding of a municipalities' functionalities and the extent of their development and capabilities. Through the index, citizens can better understand their local government administration, which in turn builds transparency and generates trust among key stakeholders.

The framework covers 20 varied sectors vis. education, health, water and wastewater, SWM and sanitation, registration and permits, infrastructure, revenue management, expenditure management, fiscal responsibility, fiscal decentralization, digital governance, digital access, digital literacy, plan preparation, plan implementation, plan enforcement, transparency and accountability, human resource, participation and effectiveness.

Service delivery by corporatized municipal entity

As observed from Table 8, the urban transport service is directly provided by the corporatized municipal entity.

In the case of Patiala and Nadiad, urban transport service is not provided.

Regular city transport service in Amritsar was to be provided by ACTSL, but the operations were suspended from 2013. Currently, the BRTS is provided by a not-for-profit society established by PIDB; the institutional and financial structure of this society has not yet been fully defined. Hence, the institutional model of Amritsar is not discussed in detail, only its brief description is given in the box below.

In Amritsar for provision of transport service the role of municipal corporation is not defined, and public transport services is neither a mandatory nor a discretionary function to be provided by the MCs under the Punjab Municipal Corporations Act 1976.

In 2009, as part of a stimulus package to insulate the Indian economy from the economic crisis, under JnNURM Government of India had provided grants to cities for procurement of buses. Amritsar was also one of the beneficiaries under this scheme. Hence, for its operation it created ACTSL, MCA with 60% ownership and 40% owned by the PIDB. ACTSL engaged a private sector operator to provide city bus services, but due several institutional and contracting issues, and litigation the bus operations were suspended in 2013.

Again in 2014, a BRTS project, costing INR 5 billion was approved under JnNURM for Amritsar. The PIDB, through the Public Works Department (PWD), executed the project and commenced BRT services. The state government created a not-for-profit organization, Punjab Metro Bus Society (PMBS), under the PIDB, to operate BRT services in five cities of Punjab, including Amritsar. PMBS currently operates the 31 km BRT service route with funding support from the PIDB but later the state government transferred the project from the PIDB to the Ministry of Local Government. The project is subsequently to be transferred to the MCA. Currently, there is no clarity on how the funds will flow to MCA for operating and maintaining the BRT project. MCA is likely to be paid from the urban transport fund created by the state government (the sources for this fund includes 10 paise or 10% cess on petrol and diesel sold in an urban area and a 10% cess on sale of vanity or personalised vehicle license plates).

In the above context, only the institutional structure of Ahmedabad urban transport has been discussed for the diagnostic study.

Descriptions of service and organization structure

Regular public transport service in Ahmedabad city is provided by AMTS, a municipal utility (defined as an undertaking in the Gujarat Municipal Corporations Act) of AMC. In 2009, Ahmedabad had launched BRTS on dedicated corridors on the central lane, to provide faster, eco-friendly and advanced public transportation, this service was provided through a special purpose vehicle AJL, which was registered as a 100% subsidiary of AMC, under Companies Act, 1956. The organization structure of both these institutions is described below.

Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
<ul style="list-style-type: none"> ▪ AMTS has been providing city bus services since 1946. It is a municipal utility (defined as an undertaking in the Gujarat Municipal Corporations Act) of AMC; ▪ The transport committee of AMC manages AMTS. The corporation appoints a nine-member transport committee with the chairman of the standing committee as its ex-officio member. The other members of the transport committee could be councilors or persons with experience in administration, transport, engineering, industrial, commercial, financial, or labor aspects – appointed by municipal commissioner²⁴; ▪ The executive wing is headed by the Transport Manager who is appointed by the corporation with prior approval of the state government. Currently, the Deputy Commissioner of AMC looking after administration of AMTS and AJL serves as Transport Manager; ▪ All the executive powers pertaining to construction, purchase, organization, maintenance, and management of public conveyance vests with the Transport Manager; and ▪ Currently, AMTS and AJL operate buses independently and operations are not integrated. 	<ul style="list-style-type: none"> ▪ AJL, a 100% subsidiary company of AMC, has been created for providing BRT services along a 101 km corridor in the city; ▪ Ahmedabad’s Municipal Commissioner is the Chairman of AJL. The Board of Directors includes the Chairman (i.e., AMC Commissioner), Director (i.e., AMC mayor), chairman of the standing committee of AMC, opposition party leader of AMC council, joint commissioner of the traffic police, a special invitee from Centre for Environmental Planning and Technology (CEPT) university as a technical consultant and the executive director. The executive director²⁵ is the executive head of the company, who is supported by the general manager²⁶ and other technical staff; ▪ There is no service contract between AJL and AMC; and ▪ AJL has appointed four private operators to operate BRT buses on a gross cost contract²⁷.

24 It is noted that institutionally, citizens or users are not required to be part of this committee.

25 The executive director is the deputy commissioner of AMC.

26 The general manager is assistant commissioner of AMC.

27 The contract is for specified route and for a specified period, a fixed price is paid to the operator on a monthly basis, the ticket collector is an employee of AMTS/AJL and the revenue risk is on AMTS/AJL.

Legal and Institutional arrangements

Item	Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
Organizational aspects	<ul style="list-style-type: none"> ▪ AMTS has no service contract with AMC; ▪ 90% of AMTS fleet is deployed through private operators; normally the private operators enter into gross cost contracts with AMTS; ▪ In 2009, under JnNURM grant, 550 buses were procured by AMC and were handed over to AMTS; and ▪ AMTS has a fleet size of 659, of which 278 are AC buses; on an average, there are 106 passengers per vehicle against the capacity of 53 (34+20 standing). Refer to Annexure 4.5. 	<ul style="list-style-type: none"> ▪ AJL is responsible for managing BRT corridors, planning routes and service scheduling, fare regulation, performance assessment and monitoring; ▪ Aspects of operations like bus operations, fare collection, station cleaning, and maintenance have been contracted out; ▪ The main function of Janmarg is to maximize the quality of transit service at minimum possible cost; ▪ Currently, AJL network spans 101 km, and daily passengers' number about 1.30 million. For other statistical information, refer to Annexure 4.8; ▪ With real-time passengers' information system, commuters can learn about next buses from public information display; ▪ Janmarg has also installed CCTV cameras in all bus shelters and buses; and ▪ Each bus shelter has automatic doors for boarding and alighting from bus and Turnstile's barriers for Janmarg card validation.
Project planning and maintenance	<ul style="list-style-type: none"> ▪ For all practical purposes, AMTS is an extended arm of AMC and the Transport Manager is the head of the organization. But for any major decision regarding planning, procurement, fare revision, etc., approval from AMC would be required. 	<ul style="list-style-type: none"> ▪ The Board of AJL is empowered to recruit staff, to decide fares and to approve budgets, but being a 100% subsidiary of AMC, final decisions rest with AMC/state government, as in the case of other services delivered by AMC.
Finances	<ul style="list-style-type: none"> ▪ The Transport Manager is empowered to approve expenditure up to INR 50,000; for any expenditure over and above this limit, the transport committee's approval is required; ▪ The corporation's approval is required if expenditure exceeds INR 500,000; and ▪ The transport fund cannot be utilized to undertake any activity excepting those required for AMTS. 	<ul style="list-style-type: none"> ▪ In last five years, AJL stands in deficit in range of INR 250-560 million, which is being funded by AMC as loan on books of account; ▪ It is also to be noted that both AMTS and AJL gets a viability gap funding for its operations an amount of INR 12.50 per km of bus operation (50% each from AMC and state government) and for electric buses it gets INR 25 per km; ▪ Fare revision is done by respective organizations with the approval of the Board in the case of AJL and Transport Committee in the case of AMTS. This is based on a formula approved by state government about a decade ago (linked to labor cost, inflation and fuel price, a maximum percentage of increase is fixed, AMTS and AJL can revise the fare anything below that specified maximum percentage), for which they need not go to the state government for approval on an annual basis; and ▪ AJL being registered as a company and it being a legal entity all its finances are ring fenced.

Item	Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
	<ul style="list-style-type: none"> The capital expenditure of AMTS is funded from the Transport Fund, which it may receive grants from Central government or AMC contributions. While AJL capital expenditure is funded in form of loans from AMC or any and project specific grants from central government. It is to be noted that currently both AMTS and AJL have done away with traditional capital funding, at least in case of bus procurement which is done on “Gross Cost Contract” basis this expenditure is now being taken as revenue expenditure and the viability gap funding comes in as a support for such expenditure. 	

Oversight, autonomy, and accountability

Service aspect	Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
Oversight	<ul style="list-style-type: none"> Though both AMTS and AJL directly or indirectly come under the control of AMC, for all practical purposes, the General Board and Commissioner of AMC, hold an oversight function; and Though AMC has oversight function on both AMTS and AJL, there are issues with regard to route rationalization; <ul style="list-style-type: none"> During the planning of the BRTS system, it was envisaged that the BRTS and AMTS services would not compete and rather act as trunk and feeder network. In the initial phases, AMTS restructured its routes to comply with this policy; However, post 2011, with the opening of the new BRT sections, AMTS did not pull out its services and continued its operations parallel to BRT, as this action of AMTS would affect revenue of AMTS; and As the city bus fares were lower than BRTS, the latter was unable to attract new passengers on the system. In due course, shared auto-rickshaws also proliferated back along the BRTS corridors adversely affecting BRT ridership. 	
Autonomy	<ul style="list-style-type: none"> AMTS needs to take the state government’s approval for recruitments. Since 1995, there have been no recruitments in AMTS. 	<ul style="list-style-type: none"> AMC can create posts, take decision on recruitments, and appoint officials and staff without requiring state government approval; and The Board of AJL is empowered to recruit staff, to decide fares, and to approve the budget.
Accountability	<ul style="list-style-type: none"> Normally, for transport service, multiple options are available like scooters, motorcycles, auto taxis, Uber, Ola and private cars. Thus, to improve efficiency and service quality, regular feedback is a must²⁸ (short route of accountability). 	<ul style="list-style-type: none"> A survey was carried out by Mahadevia²⁹ in 2012 in that 47% of BRTS users shifted from AMTS which is also running buses along the BRTS corridors; Another 25% of users shifted from auto-rickshaws, 11.7% from private vehicles, and only 2.3% from walking and cycling. The remaining 13% of users have been encouraged to travel by BRTS due to its better service quality. Share of other modes has reduced significantly, implying decrease in use of motorized modes³⁰;

28 If there is higher preference for riding public transport or higher ridership for public transport, it indicates public transport (e.g., BRTS and Metro service) is more efficient than other available choices.

29 Mahadevia, D.; Joshi, R.; Datey, A.; Accessibility and Sustainability of Bus Rapid Transit in India; Climate and Sustainable Development Technical University of Denmark: Roskilde, Denmark, 2012.

30 Rogat, J.; Dhar, S.; Joshi, R.; Mahadevia, D.; Mendoza, J.C. Sustainable Transport: BRT experiences from Mexico and India. Wiley Interdiscip. Rev. Energy Environ. 2015, 4, 564–574.

Service aspect	Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
		<ul style="list-style-type: none"> ▪ Since its launch, Janmarg BRTS has earned worldwide acclaim and is a role model in the public transportation sector in India. Janmarg BRTS is the first BRT system in India that has achieved a “Silver” rating, as it scored between 70 and 84 on a scale of 100 in the BRT standard score developed by Institute for Transportation and Development Policy (ITDP);³¹ ▪ To ensure safe and comfortable journeys, all system operators are trained well by experts on technical and behavioural aspects. Routine medical check-ups and Yoga sessions are also organized for all system operators, who are well trained in proper docking at stations and in completing trips on time; and ▪ AJL has also managed quite a high ridership (passengers per day) as statistics of AMC in 2011 show that on average daily 0.13 million passengers use BRT service; daily revenue is about INR 0.75 million.³²

Finances

Ahmedabad Municipal Transport Services	Ahmedabad Janmarg Ltd
<ul style="list-style-type: none"> ▪ Financial performance of AMTS and AJL is presented in Annexure 4.6, Annexure 4.7, and Annexure 4.8 	<ul style="list-style-type: none"> ▪ AJL incurred loss of INR 560 million in 2019 and achieved 55% cost recovery. Currently, INR 3 billion is the loan outstanding of AJL from AMC; and ▪ AJL’s operating ratio was in the range of 1.15 to 2.78, between 2009 and 2016.
<ul style="list-style-type: none"> ▪ In 2019, AMTS incurred loss of INR 3,070 million, indicating cost recovery of only 28% of O&M cost; and ▪ The deficit is being financed by AMC in the form of loan on books of account. Currently, outstanding debt of AMTS to AMC measures INR 29 billion. 	
<ul style="list-style-type: none"> ▪ AMTS needs to fix tariffs as per the tariff policy approved by the corporation. If the tariff needs be revised beyond the limits prescribed, then AMTS needs to take the corporation’s approval; and ▪ 64% of AMTS income comes from fare box. However, AMTS’ finances are also in deficit and funded by AMC as loan. 	

Transparency and citizen participation

Information regarding citizen participation in policy, planning, route decisions, fare decisions, service-levels issues, etc. is not available. Hence, transparency and citizen participation in transport service has not been discussed.

31 Extracts from article on Ridership and the Built-Form Indicators: A Study from Ahmedabad Janmarg Bus Rapid Transit System (BRTS) Md Rabiul Islam, Mark Brussel, Anna Grigolon and Talat Munshi.

32 National Institute of Urban Affairs. Urban Transport Initiatives in India—Best Practices in PPP (Ahmedabad Bus Rapid Transit System). 2011.

Outcomes

The outcome of Ahmedabad transport service is assessed in terms of available service-level indicators, investment made in last few years, organizational performance and public satisfaction indicators.

As per MoHUA, acceptable norm is 40 buses per 100,000 people. Amritsar has eight buses per 100,000 people and Ahmedabad 18. In 2019, PMBS of Amritsar had daily average ridership of 25,000, while AJL and AMTS recorded 0.15 million and 0.52 million, respectively. A few key indicators are listed in Table 7 and Annexure 4.5 to Annexure 4.8.

TABLE 9 PERFORMANCE INDICATORS – URBAN TRANSPORT

Indicators	Unit	PMBS	AJL	AMTS
		Amritsar	Ahmedabad	
Daily ridership	Number	25,000	150,000	517,000
Fleet size	Number	93	275	745
Route length	in km	31	101	NA
Revenue	INR million	120	NA	1,240
Expenditure	INR million	360	NA	4,310
Surplus/Deficit	INR million	-240	-560	-3,070

A few aspects of Ahmedabad transport service:

- Public transport has not registered any modal shift in last 5 years;
- In last two years, usage of private cabs like Ola and Uber and auto-rickshaws by citizens has increased;
- Janmarg is accessible for all sections of society; special provisions like wheelchairs and suitable ramps at stations are provided to facilitate physically challenged persons. Track tiles and linear tracks are provided for visually handicapped people. System design is congenial for social inclusiveness and social realities; and
- Except for number of buses for 100,000 population (Ref. Table 8), on all other aspects AMTS service is fair to good, so overall we may term AMTS service as fair.

TABLE 10 COMPARATIVE PERFORMANCE INDICATORS – URBAN TRANSPORT

S. No.	City	Population (in Lakhs)	Average Trip Length	Density	Congestion Factor	Public Transport Network density	Fleet size Buses/ 100000 population	CO ² Index	Public Transport Share	Intermittent Public transport
1	Mumbai	124.42	11.9	25,707	0.7	1.5	36.8	0.85	46	6
2	Delhi	110.34	10.2	9,908	0.6	2.8	46.4	0.89	43	6
3	Bengaluru	84.43	9.6	11,394	0.6	2.3	41.5	0.93	35	7
4	Hyderabad	67.3	7.9	10,354	0.6	1.3	56.5	0.93	35	7
5	Ahmedabad	55.7	6.2	12,004	0.7	1.9	22.4	0.96	30	7
6	Chennai	46.8	8.6	10,986	0.6	2.6	44.9	0.94	31	8
7	Kolkata	44.8	10	21,854	0.7	2.6	38.5	0.80	54	4
8	Surat	44.6	5	13,660	0.5	0.5	2.8	0.98	11	11

Source: Comprehensive Mobility Plan of various cities available in public domain (Student Thesis).

- **Environmental and climate**
 - The UN has chosen Ahmedabad's BRTS as a showcase project to highlight that addressing climate change is not a burden, but an opportunity to improve the lives of people;
 - The Ahmedabad BRTS, which began as a pilot project on a 12.5 km stretch in July 2009, has emerged as an example of how a planned commuting system can help reduce emissions and improve air quality, as well as positively impact urban development;
 - In the three years of its existence, BRTS has expanded to 51 km. Some 20% to 22% of commuters, who were using two-wheelers to commute, have moved to the bus system. Currently, the BRTS network spans 101 km with 228 AC buses; and
 - A recent survey shows that 52% of BRTS users were earlier riding their own two-wheelers, 30-40% using normal bus services and auto rickshaws, and 4-5% cars.
- **Awards and achievements of AJL** in the area of implementation of sustainable BRTS operations:
 - National Award for "Best Mass Transit Rapid System Project - 2009" from Government of India;
 - International Award for "Sustainable Transport Award - 2010" at Washington DC, USA;
 - International Award for "Outstanding Innovations in Public Transportation - 2010" from UITP, Germany;
 - National Award for "Best Innovation Project Towards Improvement in Urban Mobility in the City of Ahmedabad through New Technological Innovations in Janmarg BRTS - 2010" from Government of India;
 - International Award for Design - "Daring Ambition Award and Knowledge and Research Award - 2011" at 59th UITP World Congress, Dubai;
 - National Award for "Award for Excellence in the category of Best ITS Project - 2011" from Government of India;
 - International Award for "Momentum for Change 2012" given by United Nations in the light house activities conference, held on 5th December 2012 at Doha, Qatar;
 - AJL has won one award at the 60th UITP World Congress, Geneva on 27th May 2013;
 - AJL-AMC have received awards in the category of 'UITP India Political Commitment Award'. This award was given by Mr. Peter Hendy, President Elect UITP, in the presence of other UITP delegates from all over the world and delegates from India;
 - Markenomy Awards 2013- Award for "Best Urban Infra Mass Transport Project" received from Falcon Media at Mumbai, 26th Sept 2013; and
 - HUDCO Award for best practices to improve the living environment, given in February 2014 at New Delhi.

Service delivery by agency of state government

As discussed earlier, in the four cities covered by this diagnostic study, it is observed that no service is provided by state-level nodal agencies. However, GWSSB and PWSSB do provide water service to urban and rural local bodies. But both these institutions play extremely limited roles, they just implement water supply projects at a charge to concerned local bodies and transfer the projects to local bodies for operation and maintenance (O&M).

In this context, with limited scope for services provided by these institutions and also limited information of service provision provided by these institutions, only the institutional and legal aspects was discussed below.

Gujarat Water Supply and Sewerage Board

Institutional Aspects

GWSSB was established under Gujarat Act No.18 of 1979, for rapid development and proper regulation of water supply and sewerage services in the state of Gujarat. GWSSB (The Board) is committed to ensure sustainable water supply and sanitation services in the state, for accomplishing basic health and hygiene levels, leading to socio-economic development, communal harmony, and peace society.

GWSSB is empowered to borrow on behalf of ULBs, under GWSSB Act, 1978 Act (Section 36 to 41). A significant feature of the Act is that the Board may borrow money on behalf of a municipal corporation/municipality, if requested so by the corporation/municipality, for implementing water supply and sewerage schemes, and advance the moneys to the corporation/municipality on certain terms and condition laid down by the state government (Section. 39 (3)). The Act empowers the state to guarantee repayment of loans and payment of interest given to the Board (Section 41).

It may also advance loans on terms and conditions in agreement with the Board (Section 37). By virtue of Section 39, the Board is empowered to borrow money from any bank, financial institutions or any other institution approved by the state government, with prior approval from the state government, on certain terms and conditions.

Duties and functions of GWSSB

Duties and functions of the Board according to GWSSB Act No.18 of 1979 are identified as such:

- Prepare draft State plans for water supply, sewerage, and drainage on the directions of the state government;
- Prepare, execute, promote, and finance schemes for water supply and for sewerage and sewage disposal;
- Render all necessary services regarding water supply and sewerage to the state government and local bodies and on request to private institutions or individuals;
- Assess requirements for manpower and training in relation to water supply and sewerage services in the state;
- Review and advise on tariff, taxes, fees, and charges of water supply and sewerage systems, relating to areas that fall within the sphere of operation of the water supply and sewerage services of the Board, and in areas of the local bodies which have entered into an agreement with the Board;
- Review technical, financial, economic, and other aspects of water supply and sewerage system of all schemes of the Board or the local bodies which have entered into an agreement with the GWSSB;
- Establish standards for water supply and sewerage services (Specific to Gujarat state);
- Establish and maintain a facility to review and apprise technical, financial, economic, and other pertinent aspects of every water supply and sewerage scheme in the state;

- Operate, run and maintain any water works and sewerage system, if and when directed by the state government, on such terms and conditions and for such period as may be specified by the state government; and
- Carry out applied research for efficient discharge of the duties and functions of the Board.

2.6.1.3 Preparation and approval of capital projects in Gujarat

Implementation of capital projects is subject to several technical, financial, and administrative approvals from the state government. Traditionally, state government agencies (para-statal) have played a significant role in constructing and often maintaining infrastructure in municipal areas. At present, local bodies themselves are executing such schemes with technical sanction from state government departments like GWSSB and PWD.

Sanction powers are specified in the manuals of these agencies, which also mention the limits for different grades of authority. Administrative approval is given by Gujarat Municipal Finance Board (GMFB), after technical sanction is obtained from the concerned state government agency. Approval of the state government is necessary if the project involves large outlays.

Technical approval is sought from Roads and Buildings Department for large-scale civil works, and from GWSSB for big-ticket water supply and drainage work.

Punjab Water Supply and Sewerage Board

PWSSB is a statutory body set up by the state government for development, regulation and control of drinking water sector and sewerage sector in the urban areas of Punjab. Prior to the formation of PWSSB, such services were being performed by Punjab, PWD, Public Health Department. The jurisdiction of PWSSB (Board) extends to the whole state (Urban Areas). The Board largely works to put in place an urban water supply system, sewerage schemes and sewerage treatment plants (STPs), as well as operational management water supply schemes, sewerage schemes and STPs in various towns of Punjab.

In 41 years of its existence, PWSSB has executed many prestigious water supply and sewerage projects funded by World Bank, HUDCO, JNNURM, and AMRUT; Urban Infrastructure Development Scheme for Small and Medium towns (UIDSMT); and PIDB-aided water supply and sewerage schemes. PWSSB has also set up sewage treatment plants under river action plan is this a specific plan, and executed JICA-aided sewerage project of Amritsar.

Institutional aspects of PWSSB

- PWSSB can initiate projects in a municipal area without securing approval from respective municipal corporation;
- The city is obliged to pay/reimburse PWSSB for all its activities; and
- The city needs to pay about 17 or 18% of the project cost as PWSSB's fees; recently, the fees charged by PWSSB was reduced to 6%.

Overlapping jurisdiction, lack of requirement of consent from local body, and bifurcating of responsibilities – capital to be provided by PWSSB and O&M function by city – are major issues.

Duties and functions of PWSSB

- Working out priorities with the approval of the government and drawing up a detailed programme of executing schemes;
- Planning and preparing schemes including drinking water or sewerage facilities schemes, in areas falling within the jurisdiction of more than one local authority;
- Define norms for staff deployment by a local authority, standard norms for maintenance of water supply and sewerage works;
- Investigating and surveying the requirements of water supply and sewerage schemes; and
- Executing such drinking water supply or sewerage facilities schemes as may be transferred by the Government from the Department of Public Health to the Board.

ISSUES AND RECOMMENDATIONS

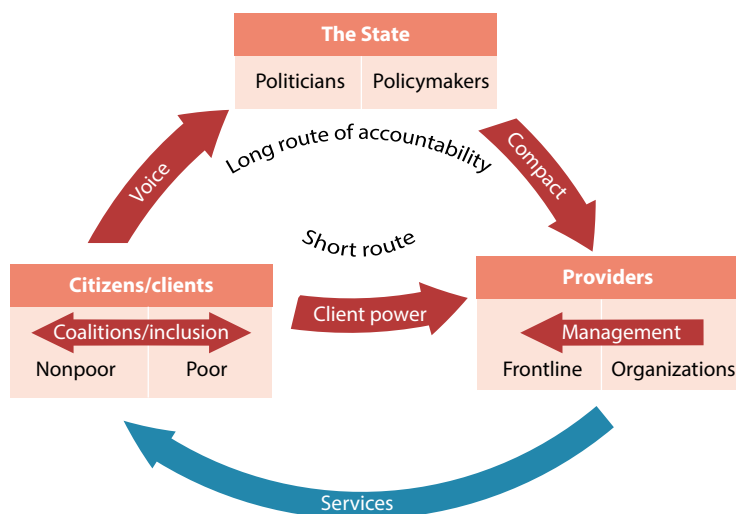


Efficiency of urban institutions involved in service delivery is a function of autonomy available to these institutions in taking up projects (capital works) to improve service levels, mobilize resources (new sources and regular revisions of tariffs), and secure regular feedback from citizens to better service delivery.

In earlier sections, four services were discussed across four Indian cities (from two states – Punjab and Gujarat). This section tries to summarise the issues and identify possible solutions to issues related to institutional structure, legal provision, transparency, and service efficiency.

According to the World Bank Development Report 2004, service providers can take two routes of accountability – long and short.

The “long” route of accountability referred to citizens influencing policymakers and policymakers influencing service providers. This happens through the process of election, but citizens can also be involved in planning, implementation, budgeting, etc. Currently, in India, there is little or no scope for direct and day-to-day involvement of citizens at the local level, even if there is some form of involvement of citizens, the real policymaker is the state government³³.



The “short” route of accountability means that the citizen directly influences the service provider, i.e., the customer can exercise some power over the provider. The customer provides critical inputs in planning or chooses not to use or to use less of a service and convey the message that there are issues in service delivery. But such a system can be instituted only if there are multiple service providers, which is a rare phenomenon in India. For most municipal services, normally there are no competing providers. In case of transport, citizens enjoy a degree of choice. Public can opt for alternative service providers but cost may be higher for service provided by private companies (mainly taxis/cabs and 3 wheelers).

33 In long route of accountability, citizen votes for a political party, and members of the winning party/combination of parties elects the Chief Minister, who along with the minister of the concerned department or the local body manager (commissioner of the city appointed by the state government) takes decisions.

But the short route of accountability is clearly visible on an informal basis in most local bodies – citizens contact their concerned councilors, informing them about issues, and minor complaints get addressed on priority basis. But the short route is not practiced for large capital works or for any policy decisions such as tariff revision.

Issues

The institutional and governance aspects that are being reviewed to assess the effectiveness of institutional structures to deliver services are:

- Autonomy;
- Accountability;
- Transparency;
- Citizen participation;
- Quality and efficiency; and
- Cost recovery

This review shall form the basis for identifying solutions and recommending changes in the existing institutional structure.

Aspects	Aspect that is reviewed	Water supply & sewerage	Solid waste management	Transport	Water supply state level agency
Autonomy	Do the service providers enjoy autonomy?	<ul style="list-style-type: none"> ▪ Commissioner/Chief officers are executive heads of the local bodies; they drive day-to-day functioning of the organization; ▪ Elected members of the local body are not fully empowered to take any policy decision. Resolutions of council on critical aspects need to be approved or ratified by the state government (in case of Punjab, but Gujarat the elected body is fully empowered for all delegated functions); ▪ In general, there is little or no autonomy in human resource aspects, resource mobilization, large-scale capital works, etc., though in Gujarat, municipal corporations have greater autonomy in these aspects, but for resource mobilization they also need approval from state government (e.g., revision of property tax, levy of user charges, etc.); 		<ul style="list-style-type: none"> ▪ Both in Ahmedabad (Gujarat) and Amritsar (Punjab), transport authorities are accountable to their respective municipal corporations. So, they enjoy the same level of autonomy as the municipal corporations. 	<ul style="list-style-type: none"> ▪ Being state-level institutions, they report to state government; ▪ Being state-level departments, they have overriding power on local bodies in project preparation and borrowings, without taking their consent of local body; and ▪ State nodal agencies like PWSSB and GWSSB levy project management charges for capital works undertaken on behalf of local bodies. These charges are not in line with market rates.

Aspects	Aspect that is reviewed	Water supply & sewerage	Solid waste management	Transport	Water supply state level agency
		<ul style="list-style-type: none"> Financial power of expenditure is too low and is not commensurate with the nature and scale of work these institutions undertake – this aspect needs to be relooked and upward revision executed; and In most local bodies, state-level agencies grant technical sanction for projects. 			
Accountability	Is the service provider accountable to citizens?	<ul style="list-style-type: none"> Most cities have web portals, manual compliant registers or toll-free numbers to register complaints. Data from sample local bodies indicates that redressal mechanism is quite good; In some cities, Mayor/Chairperson/President conduct citizen meetings; the council member also interacts with citizens. During these meets and interactions, some complaints and requests are addressed; and It is rare that citizens or communities are involved in planning and implementation of works. 		<ul style="list-style-type: none"> No such system is observed wherein citizens' feedback is taken into consideration, even though multiple options are available for commuting. 	<ul style="list-style-type: none"> The department must conduct fortnightly or monthly meetings with the chief officer and the president of the municipal council, about progress of water supply projects executed by the department. Citizens are not involved in such meetings; and Lack of coordination between two agencies providing same or similar services (e.g., no coordination between AMTS and AJL for service route, they compete with each other rather than complement each other).
Transparency	Is the service provider transparent in governance?	<ul style="list-style-type: none"> Online and offline complaints registration system is in place. Complaints regarding service levels primarily are addressed on priority basis; At informal level, citizens interact with ward councilors to address day-to-day issues; 		<ul style="list-style-type: none"> For route planning, surveys are conducted, but no inputs from citizens on fare and service levels are registered. 	<ul style="list-style-type: none"> Being a department of state government, citizens of local body do not have access to register compliant also there is no direct relationship between water board and citizens for provision of services, even city's role is limited.

Aspects	Aspect that is reviewed	Water supply & sewerage	Solid waste management	Transport	Water supply state level agency
Citizen participation	Are citizens involved in planning and other aspects of service delivery?	<ul style="list-style-type: none"> ▪ Lack of citizens involvement in planning process and resource mobilization. 			<ul style="list-style-type: none"> ▪ No
Quality and efficiency		<ul style="list-style-type: none"> ▪ In terms of quality, further investigation is required – particularly regarding sewerage coverage, collection efficiency and quality of treatment; ▪ In the case of water supply, estimates of NRW levels are unreliable; and ▪ In the case of SWM, scientific treatment and disposal of waste is a challenge. 			
Cost recovery		<ul style="list-style-type: none"> ▪ Levels of tariffs are low, contributing to low cost recovery; and ▪ None of the cities have volumetric tariffs. 			<ul style="list-style-type: none"> ▪ The cost recovery mechanisms and institutional arrangements would need to be reassessed for sustainable delivery of these services.

Recommendations

For a local government to be effective, it needs to; (a) be responsive and accountable to its citizens; (b) provide reliable, accessible, sustainable, and efficient services; and (c) manage the services through participatory and integrated planning – to enable efficiency, equity and transparency in service delivery.

For a better-performing institutional structure, one needs to look for following aspects in the functioning of institution and these aspects should be measurable indicators. Also, institutions or authorities need to be held accountable for not meeting these performance standards:

- Ethical culture;
- Good performance;
- Effective control; and
- Legitimacy.

Based on the above issues and governance framework, the following parameters need to be reviewed while restructuring the institutions:

- Hierarchy and chain of accountability needs to be legally defined;
- Local bodies need to be given more autonomy with defined accountability and performance standards monitored periodically. The commissioner/department heads have to be made accountable for service delivery;
- Though the councilors are elected by citizens, they cannot be held accountable as they don't have adequate powers for service delivery; they need more autonomy at least in terms of service delivery (project planning, capital works, tariff policy towards cost recovery); and
- Citizens need to be involved in planning process. In the case of SWM, their participation has helped in waste reduction and source segregation. The Swachh Bharat movement is built on citizen awareness of need for cleanliness.

ANNEXURES



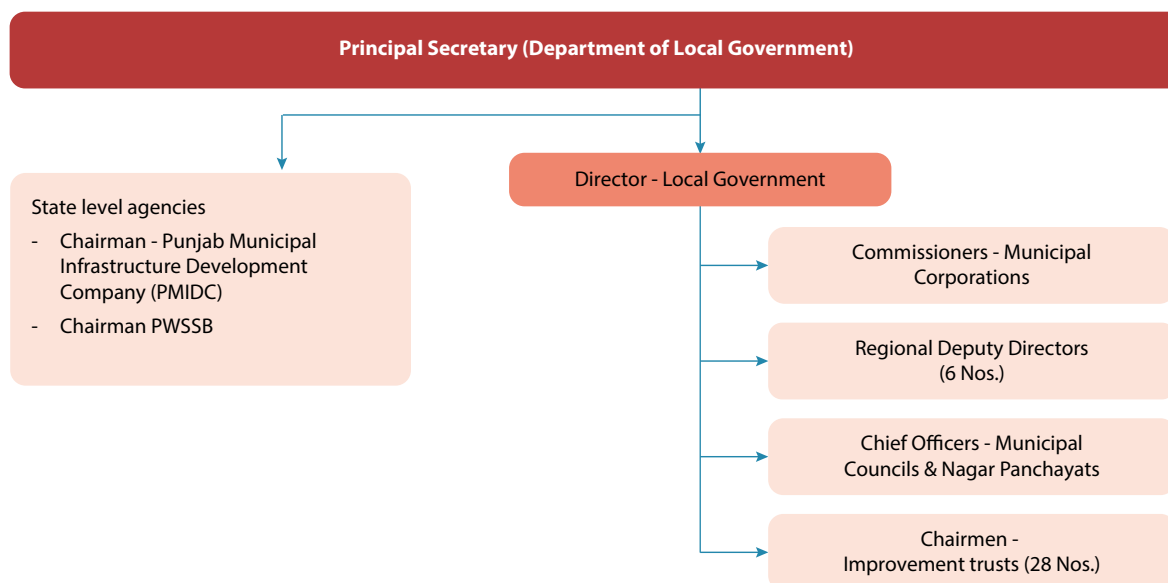
Urban Institutional and organizational structure in Punjab

Institutional structure in Punjab

The institutional framework for urban sectors in Punjab at the state level is illustrated below. Urban functions in Punjab are governed by following two departments through their specialised institutions:

- Department of Local Government:
 - Punjab Municipal Infrastructure Development Company (PMIDC);
 - Punjab Water Supply and Sewerage Board (PWSSB); and
 - Urban Improvement Trust.
- Department of Housing and Urban Development:
 - Punjab Regional and Town Development Board (PRTD Board);
 - Department of T&CP; and
 - Punjab Urban Planning & Development Authority (PUDA).

FIGURE 2 INSTITUTIONAL STRUCTURE – DEPARTMENT OF LOCAL GOVERNMENT, PUNJAB



The Department of Local Government is the main nodal state-level department for urban development functions in Punjab and plays a significant role in functioning of all urban local governments. The department has set up a not-for-profit company, PMIDC, which acts as a nodal agency for various urban development schemes, including for national flagship programme such as Smart Cities Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), and state-sponsored projects, inter alia, solid waste cluster projects and mSeva project. The urban improvement trusts, along with local governments, also come under the Department of Local Government.

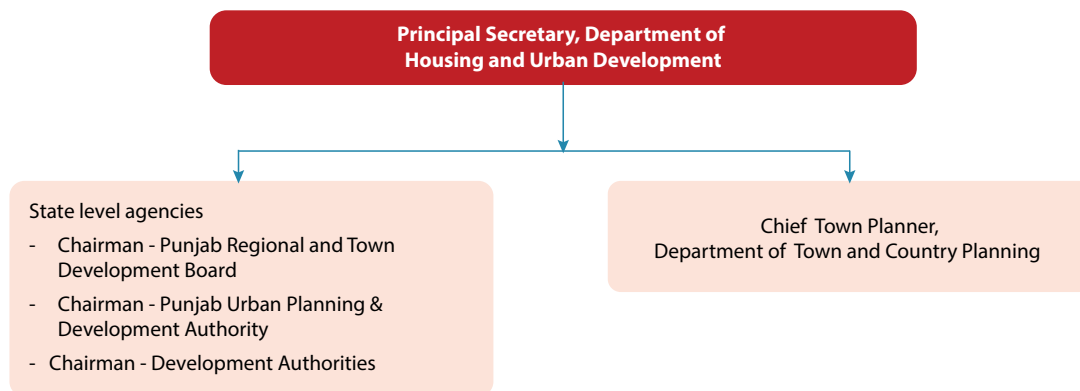
The Punjab Municipal Corporation Act, 1976, governs the functioning of the municipal corporations in the state. This Act makes it mandatory for the corporations to provide water supply as well as sewerage and SWM services. In 1976, the Punjab government, through legislation, had also set up the PWSSB, for provision of urban water supply and sewerage services, including in the cities of Punjab. The coexistence of these two Acts has meant that in some cities, the provision of services is a shared responsibility. However, in most cases, PWSSB is perceived to be more adept in handling capital works and municipal corporations in O&M activities, excepting in the case of a few large municipal corporations, where even capital works are taken care by the corporations.

Housing and Urban Development Department of the Government of Punjab

Urban planning in Punjab primarily focuses on land-use management. This responsibility shared between the Punjab Regional and Town Development Board (PRTD Board), Department of T&CP, Punjab Urban Planning & Development Authority (PUDA), and improvement trusts.

The framework is identical for both Amritsar and Patiala. T&CP and PUDA fall under the Housing and Urban Development Department of the Government of Punjab.

FIGURE 3 INSTITUTIONAL STRUCTURE – DEPARTMENT OF HOUSING & URBAN DEVELOPMENT, PUNJAB



While urban planning function comes under the purview of the Department of Housing and Urban Development, urban transport function is in practice overseen by the Department of Local Government.

As per the Punjab Municipal Corporation Act, 1976, urban transport and urban planning do not form a part of the mandate of municipal corporations.

Governance framework in Punjab

An overview of common provisions defining governance framework in Punjab corporations, as per the Punjab Municipal Corporations Act, is given below.

Administrative and legal autonomy

The elected wing of municipal corporation has a five-year term. The councilors appoint a mayor, a senior deputy mayor, and a deputy mayor from among themselves. All resolutions passed by the corporation need to be approved at the state government level by the Department of Local Government. The elected wing does not enjoy autonomy in decision-making on local policy matters.

The executive wing, comprising officers and other staff members of the municipal corporation, is headed by a municipal commissioner appointed by the state government. As per the Act, the mayor may give directions to the commissioner from time to time. The role of the mayor is not obligatory but discretionary in municipal administration. The municipal administrative staff reports to the commissioner and not to the mayor. The mayor, along with the elected officials, does not have any direct control over the functioning of municipal officials. The municipal commissioner reports to the Department of Local Government.

All proposals need to be passed by the municipal corporation and are forwarded to the Department of Local Government for final approval. The elected officials can only propose and recommend; hence, they cannot be said to be driving the municipal administration.

Human resources

The commissioner is appointed for not more than three years, and the appointment is subject to extension by the state government for a period not exceeding three years at a time. Normally, the actual term of the commissioner is much shorter, as these positions are prone to frequent transfers by state government.

The staffing structure cannot be decided by the corporation and the state government's approval is required to create a new post. The qualification criteria for recruitments and promotions are also decided by the state government for the municipal service staff cadres. All recruitment in the municipal corporations of the rank of junior engineer and above must be approved by the corporation, and, thereafter, by the Department of Local Government. All engineers and technical staff, and accounts officers hail from their respective state cadres. The municipal officials may get transferred from one city to another within their respective cadres as per the decision of the state government.

Financial autonomy

All expenditure above INR 10 million (0.3% and 1.1% of MCA's and MCP's revenues, respectively) also needs to be approved by the Department of Local Government. While the local government can vet proposals up to INR 5 million, the approval power still rests with the Department of Local Government. Annual budget must be submitted to the Department of Local Government for approval.

Property tax rates are determined and revised by the state government. PMIDC has recently called for expressions of interest from consultants to suggest measures to improve property tax collection and implement the same in several cities of Punjab. Thus, PMIDC is supporting the state government in property tax policy and tax administration.

Also, municipal corporations require approval of the state government for undertaking any borrowing.

Ways of financing

Local governments in Punjab avail of a mix of own-source revenue and fiscal transfers. But they are, in general, highly dependent on state governments to meet their expenditure obligations. Even in the case of own sources of income, they enjoy limited autonomy. In the case of property tax, the rates and assessment methodology are determined by the state government. The rates are same for all municipal corporations, irrespective of their size.

Water supply tariffs have not been revised for more than 10 years. This has impacted cost recovery of water supply and sewerage services. The state government decides on the water tariffs when they are linked to property taxes. However, if consumption-linked tariffs are to be adopted, the local government is empowered to decide on the charges. In 2020, the Punjab government issued an order to adopt cost-reflective tariffs and mandating annual revision.

The state government shares 11% of GST collections with municipal corporations. The state governments mandate that 20% of the GST revenue should be assigned to the water supply and sewerage revenue account. In case the services are provided by PWSSB, this amount is transferred to it, in addition to user charges collected by municipal corporations.

One of the not-so-common revenue sources of municipal corporations is municipal tax on electricity consumed within the municipal jurisdiction. This tax is collected by the electricity distribution company and transferred to the municipal corporations through the state treasury.

Institutional models for services

The table below provides a snapshot of organizations discharging four urban services and responsible for urban planning function in Punjab cities.

Service	Capital works	O&M
Amritsar		
Water supply and sewerage	Municipal corporation department	Municipal corporation department
Solid waste management	Municipal corporation department with intervention of a state-level nodal agency	Municipal corporation department
Urban transport	Role not defined. However, grant based capital investment of both central and state government are undertaken through the state-level board.	Role not defined. Currently, a state-level not-for-profit agency operates BRT services; city bus services provided by the joint stock company of the state and municipal corporation stand suspended
Urban planning	State department prepares plans	State-level planning authority implements the plan through schemes
Patiala		
Water supply and sewerage	Municipal corporation department and PWSSB	Municipal corporation department
Solid waste management	Municipal corporation department with intervention of a state-level nodal agency	Municipal corporation department
Urban transport	Urban transport service is not provided	
Urban planning	State department prepares plans	State-level planning authority implements the master plan through schemes.

Urban institutional and organizational structure in Gujarat

Institutional structure in Gujarat

The institutional framework for urban sectors in Gujarat at the state level is illustrated below. Urban functions in Gujarat are governed by **UD&UHD** through its specialised institutions:

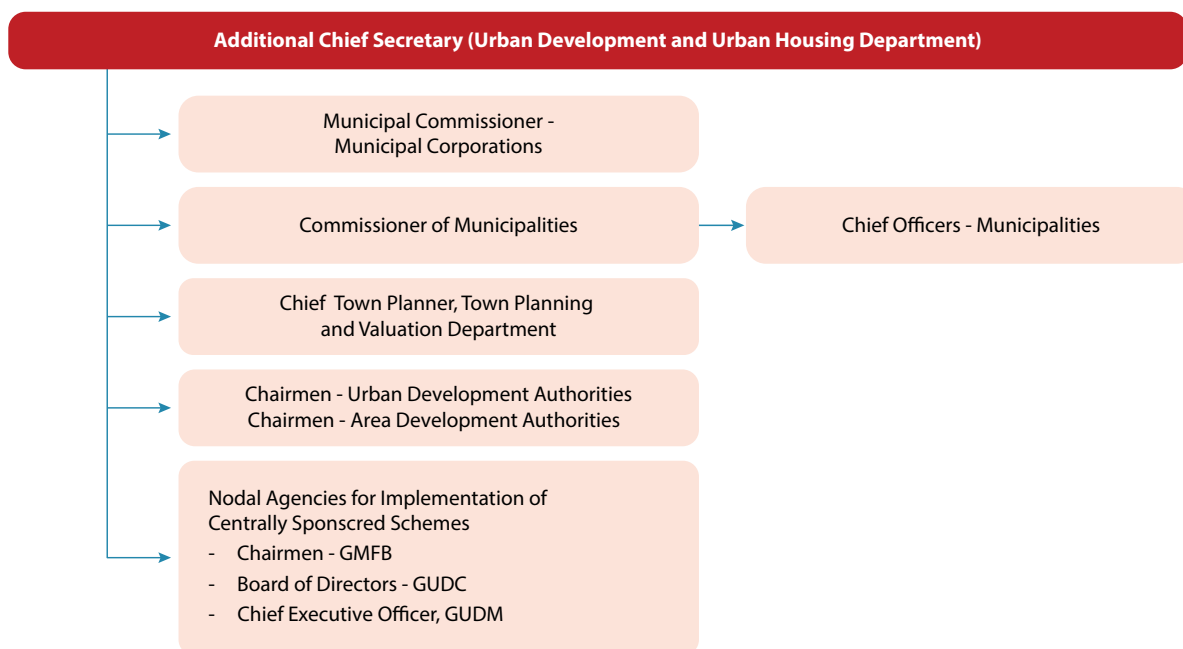
- Gujarat Urban Development Company (GUDC);
- Gujarat Urban Development Mission (GUDM);
- Town Planning and Valuation Department;
- Commissionerate of Municipal Administration (CMA); and
- Gujarat Municipal Finance Board (GMFB).

UD&UHD is the nodal ministry at the state level, responsible for all matters related to urban development. Ahmedabad is a Municipal Corporation and Nadiad, a Municipal Council. Municipal Corporations in Gujarat are governed by the Gujarat Municipal Corporations Act, 1976, and Municipal Councils by the Gujarat Municipalities Act, 1963.

The Municipal Commissioners of municipal Corporations report directly to the department; a separate Commissionerate has been created to fast-track the decision-making process in Municipal Councils.

The Municipal Corporations are responsible for design, capital works and O&M for water supply, sewerage and SWM. Urban transport is a discretionary service, provided by the Municipal Corporations. Municipal Councils (cities with less than 0.3 million population), such as NNP, are also responsible for designing, capital works and O&M of water supply, sewerage and SWM provisions. But, in the case of some projects, such as

FIGURE 4 INSTITUTIONAL STRUCTURE – URBAN DEVELOPMENT & URBAN HOUSING DEPARTMENT, GUJARAT



those funded under centrally sponsored schemes (JnNURM, AMRUT, etc.), Nadiad is supported by state-level agencies, such as GUDC/GUDM in project execution.

Urban planning is supervised by the Town Planning and Valuation Department constituted under the UD&UHD. The institutional framework for the urban sector at the state level is as follows.

Governance framework in Gujarat

Administrative and legal autonomy

Every municipal corporation and municipal council have an elected wing consisting of councilors elected for a five-year term. The elected wing of municipal corporations appoints a mayor and a deputy mayor for 2.5 years. Similarly, the elected wing of the municipal councils appoints a president and a vice-president for 2.5 years.

All local policy matters are decided by the board of municipal corporations and the board does not require state government's approval for every decision it takes. Thus, the corporations are empowered to take decisions on matters under their purview. State government's approval is required only in certain matters such as in defining institutional structure, undertaking borrowings, and approving land-use plans.

The municipal councils also enjoy a similar level of administrative autonomy.

The executive wing of the municipal corporations, comprising officers and other staff members of the municipal corporation, is headed by a municipal commissioner appointed by the state government. Similarly, the chief officer is appointed by the state government who reports to the Commissioner of Municipal Administration. This Commissionerate has been established by the state government to expedite approvals from the state government.

It is to be noted that the president of the municipal council holds more executive powers than the mayor of a municipal corporation. The president is empowered to monitor financial and executive administration of the municipality and to perform executive functions as per the legal framework. The president is also empowered to exercise supervision and control over the executive staff of the municipalities and can set aside or modify any order of the chief officer. The mayor of municipal corporations may propose development works but has no defined control over the executive wing.

The elected wing of the municipal corporations cannot be said to be driving the municipal administration, given that all departments report to the state-appointed commissioner; the elected wing can only perform a reactive role in decision-making.

Human resources

The local government has powers to recruit staff for all approved posts. Further, no state government approval is required for new recruitment/replacement if the post has been approved by the state government. The staff of the local government is not transferable. For all new promotions, 60% of the posts need to be filled from internal staff; the remaining 40% can be external candidates.

Financial autonomy

The local government is empowered to revise taxes, tariffs, and fees without securing the state government's approval. The local government is also empowered to approve expenditure without limits. But approval is required from the state government if any borrowing must be undertaken.

Ways of financing

Gujarat has an elaborate urban financing framework which suggests a ratio of sharing of revenue from certain identified sources with the local governments. It provides funding supporting for multiple activities, including incentives for achieving high collection efficiency of property tax. This funding support is channelled through the GMFB. The board was established in 1979 under the GMFB Act to encourage development activities of local governments; to improve capacity of ULBs in administering taxes and finances; and to provide guidance to local governments in improving tax collection efficiency. In fiscal year 2020, the GMFB transferred grants to local governments worth ~INR 81.9 billion, which is almost equal to own income of all local governments in the state. The board manages about 20 grant programs. Some prominent programs administered by GMFB are listed below.

TABLE 11 OVERVIEW OF MUNICIPAL GRANTS - GUJARAT GOVERNMENT

S. No.	Revenue source	Description	State grant transferred by GMFB for FY 2019-20 (In Million INR)															
1	Entertainment grant scheme	75% of the entertainment tax collected is devolved to local governments.	386															
2	Professional tax grant	50% of the professional tax collected by the Government of Gujarat within the jurisdiction of a corporation or council is allocated to the respective municipal corporation and municipality.	924															
3	Vajpayee Nagar Vikas Yojana	Under this scheme, municipalities are provided grants for development works such as water supply, drainage, storm water drainage, SWM, treatment plants, primary services in slums, public health, roads, streetlights, fire brigade, rainwater harvesting, and lake development.	0															
4.	Grant in lieu of octroi for municipalities	With the abolition of octroi in 2001, the state government introduced grant in lieu of octroi. Average of the previous three years from the year of octroi abolition was provided as grant to municipalities in fiscal 2003. This was increased by 7% in the following fiscal and by 10% in fiscal 2005.	4,267															
5.	Grant in lieu of octroi for municipal corporations	With the abolition of octroi in 2007, the state government introduced grant in lieu of octroi. The average of previous three years from the year of octroi abolition was provided as grant to municipalities from November 2007.	23,372															
6.	Buniyadi Mudi grant	This is an incentive grant introduced from fiscal 2002. Incentive is provided if municipalities can collect greater than 90% of the property tax demand	1,350															
		<table border="1"> <thead> <tr> <th>S. No.</th> <th>Percentage of property tax collection</th> <th>Percentage of establishment expenditure of municipality to be disbursed as grant</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>>90</td> <td>70</td> </tr> <tr> <td>2</td> <td>70-90</td> <td>55</td> </tr> <tr> <td>3</td> <td>>=60 and <70</td> <td>40</td> </tr> <tr> <td>4</td> <td><60</td> <td>30</td> </tr> </tbody> </table>	S. No.	Percentage of property tax collection	Percentage of establishment expenditure of municipality to be disbursed as grant	1	>90	70	2	70-90	55	3	>=60 and <70	40	4	<60	30	
		S. No.	Percentage of property tax collection	Percentage of establishment expenditure of municipality to be disbursed as grant														
		1	>90	70														
		2	70-90	55														
3	>=60 and <70	40																
4	<60	30																

S. No.	Revenue source	Description	State grant transferred by GMFB for FY 2019-20 (In Million INR)
		Establishment expenditure is calculated as INR 81 per capita multiplied by the Census 2011 population. If the establishment expenditure is greater than 48% of the own-source income of the municipality, then 5% is deducted from the grant that is extended to the municipality.	
7.	Swarnim Jayanti Mukhya Mantri Shehri Vikas Yojana (SJMMSVY)	This was introduced in 2009 and aimed at development of urban infrastructure. In the first phase (fiscals 2009-12), INR 70 billion was provided as grant, followed by INR 150 billion in the second phase (fiscals 2012-17), and INR 43.02 billion in the third phase (fiscals 2017-18). In fiscal 2019, a grant of INR 45.4 billion was proposed under this scheme.	30,411
8.*	Chief Minister's Urban Bus Service Scheme	The state government provides viability gap funding of 50% or INR 12.50/km for city bus services operated under public-private partnership (PPP) model.	NA

*This is managed by the Urban Development Department.

Organizational forms

The table below provides a snapshot of organizations in charge of four urban sectors and urban planning function in Gujarat cities.

Service	Capital works/plan preparation	O&M/implementation of plans
Ahmedabad		
Water supply and sewerage	A department in the municipal corporation	A department in the municipal corporation
Solid waste management	A department in the municipal corporation	A department in the municipal corporation
Urban transport	A utility (called 'municipal undertaking' in the Act) operating city bus services, a municipal corporation-owned company operating BRT service AMTS and AJL are managing the bus service	A utility (called 'municipal undertaking' in the Act) operating city bus services, A municipal corporation-owned company operating BRT service AMTS and AJL are managing the bus service
Urban planning	Regional urban development authority prepares land-use plan with inputs from the municipal corporation	Municipal corporation department regulates development as per the plan
Nadiad		
Water supply and sewerage	A department in the municipal council	A department in the municipal council
Solid waste management	A department in the municipal council	A department in the municipal council
Urban transport	Urban transport service is not being provided	
Urban planning	A planning wing in the municipal council	A department in the municipal council

Income sources of sample cities

Income sources – Amritsar

The Income of MCA logged 4.3% CAGR over fiscals 2015-19. Over two-thirds of MCA's revenue is that from state government grants of that bulk of which is GST/VAT. Property tax revenue has been clocking 10.8% CAGR over the period on a lower base. Tax rates are fixed by the state government and several exemptions are granted by the state government. According to MCA, ~25% of the properties or ~100,000 properties, are exempt from property tax. MCA has adopted a self-assessment system in which compliance tends to be low. On a per-capita basis, MCA generated ~INR 180 on an average. For a city of the size of Amritsar, property tax collections should be around five times this amount.



There are several constraints on both the demand and supply side of the municipal finance market. The efforts of central and state government, though laudable, have not been able to create the right policy environment, or help support cities to improve financial management, accounting, long range capital planning, etc., which constrains their ability to leverage capital markets. There are a few commendable success stories in the country. For example, in Tamil Nadu, 13 city governments successfully used blended finance methods to issue a pooled bond to leverage capital markets for financing their water and sanitation services. 41 Globally, there are innumerable such examples. The US municipal bond market, for instance, is an excellent model of an advanced bond market that is leveraged by cities to raise finance.

The Great Indian Debate, Mr. Kunal Kumar, December 2020



TABLE 12 REVENUE TRENDS – MUNICIPAL CORPORATION OF AMRITSAR (ALL FIGURES IN INR MILLION)

Revenue source	FY15	FY16	FY17	FY18	FY19	CAGR (%)
Tax revenue	175	218	230	264	287	13.2
Property tax	149	188	169	177	224	10.8
Non-tax revenue	509	470	504	355	476	-1.7
Water rate and sewerage charge	143	121	141	150	142	-0.2
License fee and levies	5	6	7	6	6	3.7
Others	361	343	356	198	328	
Shared revenue (VAT share/GST share of ULB)	1,430	1,411	1,539	1,571	1,738	5.0
- GST/VAT	1,268	1,250	1,354	1,465	1,551	5.2
- Excise duty	77	44	170	54	95	5.3
- Electricity duty	84	117	15	52	91	2.0
Total	2,114	2,099	2,273	2,189	2,500	4.3
<i>Own revenue as percentage of total</i>	32.3	32.8	32.3	28.2	30.5	
<i>GST/VAT as percentage total</i>	60.0	59.6	59.6	66.9	62.0	

Income sources - Patiala

MCP's revenue declined 1.1% annually in 2014-19. In fiscal 2014, MCP's property tax collection stood at INR 166 million. Until fiscal 2019, the corporation had not been able to raise the revenue above this level. The property tax notification issued by Punjab government in 2013 linked tax rates to value of property; assessments resulted in high property tax collections in fiscal 2014. The state government *revised downwards the tax rates in the subsequent year*. As a result, in fiscal 2015, property tax collection declined to INR 109 million.

The shared taxes have logged 8.2% CAGR during the period under review. Share of GST/VAT increased from 29.3% in fiscal 2014 to 46.7% in fiscal 2019, primarily due to declining electricity duty collection. Water and sewerage charges clocked 4.3% CAGR, with the revenue remaining erratic in the intervening years.

TABLE 13 REVENUE TRENDS – MUNICIPAL CORPORATION OF PATIALA (ALL FIGURES IN INR MILLION)

Revenue source	FY14	FY15	FY16	FY17	FY18	FY19	CAGR (%)
Tax revenue	172	110	140	148	189	170	-0.2
Property tax	166	109	129	124	154	139	-3.6
Non-tax revenue	484	228	247	392	253	296	-9.4
Water rate and sewerage charge	100	103	114	245	130	123	4.3
License fee	2	2	2	2	2	3	3.9
Building, tower & plot regulation fee	113	103	111	126	102		-2.5
Shared revenue (VAT share/GST share of ULB)	339	422	415	490	475	503	8.2
- GST/VAT	291	351	345	374	411	441	8.6
- Excise duty	10	39	36	90	40	37	30.0
- Electricity duty	38	32	35	27	24	25	-8.1
Total	995	760	802	1,031	917	943	-1.1
<i>Own revenue as percentage of total</i>	<i>65.9</i>	<i>44.4</i>	<i>48.2</i>	<i>52.4</i>	<i>48.2</i>	<i>49.4</i>	
<i>GST/VAT as percentage of total</i>	<i>29.3</i>	<i>46.1</i>	<i>43.0</i>	<i>36.3</i>	<i>44.8</i>	<i>46.7</i>	

Income sources – Ahmedabad

AMC's revenue clocked CAGR of 8% over fiscals 2015-2019. General tax collected as part of property tax collection, increased by 5% annually during this period. Further increases will be largely a function of rate rises, which is in the domain of the elected officials.

Water and sewerage charges are also collected as part of property tax. About 38% of the property tax is collected as a charge for these two services.

Profession tax collection, which was delegated to AMC in 2008 after the abolition of octroi, registered a healthy 11% CAGR during the period under review. In absolute terms, collection stood at INR 1,743 million in fiscal 2019 compared with INR 0.7 million in fiscal 2008. The municipal council also gets 50% of the professional

tax collected by the Gujarat government from its employees, working in its jurisdiction. This forms part of the shared revenue. Vehicle tax is collected by AMC directly at the time of new vehicle registration.

TABLE 14 REVENUE TRENDS – MUNICIPAL CORPORATION OF AHMEDABAD (ALL FIGURES IN INR MILLION)

Income and expenditure statements								
S. No.	Description	Actuals					Average Sectoral	CAGR
		2014-15	2015-16	2016-17	2017-18	2018-19		
Revenue Income - Recurring items								
Own Sources								
Tax revenue								
i.	General tax	3,867.50	4,418.19	4,171.11	4,229.87	4,622.54	15%	5%
	Vacant land tax	–	–	–	–	–	–	–
	Conservancy tax	1,273.85	1 059.29	1 168.13	1,561.85	1,637.10	5%	6%
	Water tax	1,153.10	942.76	1,306.19	1,408.81	1,497.63	4%	7%
ii.	Warrant tax	0.40	0.08		1.01		0%	-100%
iii.	Theatre tax	10.61	8.60	8.61	7.90	11.04	0%	1%
iv.	Professional tax	1,129.43	1,291.01	1,455.83	1,658.50	1,743.42	5%	11%
v.	Entertainment tax	6.68	35.82	36.67	22.23	5.00	0%	-7%
vi.	Vehicle tax	621.09	693.53	799.89	948.51	917.73	3%	10%
Sub Total - tax revenue		8,062.65	8,449.29	8,946.42	9,838.67	10,434.46	32%	7%
Non-tax revenue								
i.	Collection from properties	96.93	111.52	83.23	95.96	76.76	0%	-6%
ii.	Rent from properties	460.09	411.94	377.03	416.15	460.32	2%	0%
iii.	Commercial development of municipal plots	0.38	3.50				0%	-100%
iv.	User Charges							
	Bulk water supply charges	0.75	0.83	0.68	0.64	0.51	0%	-9%
	Water meter fee and charge		7.55	14.08	24.75	25.36	0%	#DIV/OI
	Water charge - metered	3.93	5.83	8.92	9.54	18.15	0%	47%
	Water and sewerage charge - non-metered	9.93	13.67	13.08	11.07	31.65	0%	34%
	Water connection charges	41.20	41.02	78.48	48.66	50.00	0%	5%
	Drainage charges	67.44	61.70	76.38	67.56	80.16	0%	4%
	Other charges	1,749.07	2,214.73	2,554.71	2,894.30	3,181.78	9%	16%
Sub Total - non-tax revenue		2,429.72	2,872.30	3,206.58	3,568.62	3,924.69	11%	13%

Income and expenditure statements								
S. No.	Description	Actuals					Average Sectoral	CAGR
		2014-15	2015-16	2016-17	2017-18	2018-19		
Grants contribution and subsidies								
i.	In lieu of Octroi	8,262.70	10,748.70	8,716.61	10,379.41	10,458.02	34%	6%
ii.	Education Grant	2,850.82	3,080.60	3,393.62	3,156.50	5,095.57	12%	16%
iii.	Health	47.20	70.72	50.98	33.47	88.44	0%	17%
iv.	Swachh Bharat		6.97	29.51	44.04	541.30	0%	#DIV/OI
v.	Transport		14.32	57.40	-	-	0%	#DIV/OI
vi.	Others	539.61	402.10	792.95	427.76	276.52	2%	-15%
Sub Total - Grants, contribution and subsidies		11,700.33	14,323.42	13041.07	14,041.17	16,459.85	49%	9%
Other income								
i.	Interest income	301.77	657.95	918.40	1,089.20	1697.37	3%	54%
ii.	Sale proceeds	634.37	489.08	179.35	85.81	130.44	1%	-33%
iii.	Miscellaneous income	995.97	1,219.34	712.94	676.63	481.75	3%	-17%
Sub Total - Other income		1,932.10	2,366.37	1810.68	1,851.64	2,309.55	7%	5%
Total revenue income		24,124.80	28,011.38	27,004.75	29,300.11	33,128.55	100%	8%

Octroi compensation, which has grown 6% per annum in last five years, is the largest revenue source for AMC. In 2007, when octroi was abolished, AMC's octroi collection stood at INR 6.9 billion. After 12 years, octroi collection has only grown at 4.2% CAGR against a promised annual rate increase of 8%. It is only in recent years that octroi compensation has surged at 8.2%.

Income sources – Nadiad

NNP overall revenue logged CAGR of 15.1% during fiscals 2016-2020. Its own-source revenue as a percentage of total income has averaged around 26% in each of these years except fiscal 2017, when it was around 46%, on account of a spike in non-tax income.

About 15% of the total income emanates from grants extended in lieu of octroi. NNP has availed of the Buniyadi Mudi Grant Scheme every year during the period under review. Both these revenue sources, which constitute about 75% of total income for NNP, have registered 20% CAGR in this period under. This has resulted in overall revenue growth of 15%. At 8.9% CAGR, professional tax has been NNP's fastest growing own-source income.

TABLE 15 REVENUE TRENDS – NADIAD NAGAR PALIKA (ALL FIGURES IN INR MILLION)

Revenue source	FY16	FY17	FY18	FY19	FY20	CAGR (%)
Tax revenue	117	133	119	137	131	2.9
Water tax	15	16	14	15	13	-2.8
Drainage tax	10	12	10	11	10	-1.4
Sanitation tax	1	1	1	1	1	-1.0

Revenue source	FY16	FY17	FY18	FY19	FY20	CAGR (%)
Sanitation cess	6	7	6	6	6	0.4
Professional tax	16	20	17	21	22	8.9
Property tax	62	70	65	75	73	4.0
Non-tax revenue	60	160	63	82	91	10.9
License fees and levies	20	16	13	30	31	11.4
Others	40	145	51	52	60	10.6
Shared revenue	17	5	3	9	0	-21.1
- Professional tax grant	17	5	3	9	0	
Grants	371	337	544	563	771	20.0
- Grant in lieu of octroi	105	96	114	97	126	4.5
- Buniyadi Mudi Grant (for establishment costs)	42	0	103	53	86	19.4
Total	565	635	728	791	993	15.1
<i>Own revenue as percentage of total</i>	<i>31.3</i>	<i>46.2</i>	<i>25.0</i>	<i>27.7</i>	<i>22.4</i>	

Service-level benchmarks over 5-year period

Ahmedabad

Performance indicators	Unit	Benchmark	2015	2019-20
Water supply				
i. Population covered by direct supply	%	100	85	98
ii. Per capita supply	LPCD	135	121	142
iii. Extent of metering	%	100	0	0
iv. Non-revenue water	%	15	31	22
v. Quality of water supplied	%	100	100	97
vi. Daily hours of supply	hours	24	2	2.5
vii. Cost recovery	%	100	53	58
viii. Efficiency in collection of user charges	%	90	60	67
Sewerage				
i. Coverage of toilets	%	100	87	100
ii. Coverage of wastewater network	%	100	66	93
iii. Collection efficiency of wastewater network	%	100	65	94
iv. Adequacy of wastewater treatment capacity	%	100	95	95
v. Quality of wastewater treatment	%	100	75	90
vi. Extent of reuse and recycling of wastewater	%	20	0	12

Performance indicators	Unit	Benchmark	2015	2019-20
vii. Efficiency in redressal of customer complaints	%	80	100	93
viii. Cost recovery	%	100	99	32
ix. Efficiency in collection of sewerage charges	%	90	58	NA
Solid waste management				
i. Household-level coverage of SWM services	%	100	75	100
ii. Efficiency of collection of municipal solid waste	%	100	73	100
iii. Extent of segregation of solid waste	%	100	3	14
iv. Extent of municipal solid waste recovered	%	80	17	26
v. Extent of scientific disposal of municipal solid waste	%	100	0	10
vi. Efficiency in redressal of customer complaints	%	80	100	100
vii. Cost recovery	%	100	26	31
viii. Collection efficiency	%	90	59	68

Nadiad

Performance indicators	Unit	Benchmark	2015	2019-20
Water supply				
i. Population covered by direct supply	%	100	80	100
ii. Per capita supply	LPCD	135	95	95
iii. Extent of metering	%	100	0	0
iv. Non-revenue water	%	15	15	11
v. Quality of water supplied	%	100	100	100
vi. Daily hours of supply	hours	24	4	3
vii. Cost recovery	%	100	80	53
viii. Efficiency in collection of user charges	%	90	80	77
Sewerage				
i. Coverage of toilets	%	100	90	100
ii. Coverage of wastewater network	%	100	75	67
iii. Collection efficiency of wastewater network	%	100	75	69
iv. Adequacy of wastewater treatment capacity	%	100	70	90
v. Quality of wastewater treatment	%	100	70	100
vi. Extent of reuse and recycling of wastewater	%	20	0	0
vii. Efficiency in redressal of customer complaints	%	80	95	99
viii. Cost recovery	%	100	50	32
ix. Efficiency in collection of sewerage charges	%	90	65	91

Performance indicators	Unit	Benchmark	2015	2019-20
Solid waste management				
i. Household-level coverage of SWM services	%	100	70	100
ii. Efficiency of collection of municipal solid waste	%	100	70	92
iii. Extent of segregation of solid waste	%	100	30	11
iv. Extent of municipal solid waste recovered	%	80		10
v. Extent of scientific disposal of municipal solid waste	%	100	30	0
vi. Efficiency in redressal of customer complaints	%	80	80	100
vii. Cost recovery	%	100	20	10
viii. Collection efficiency	%	90		100

Amritsar

Performance indicators	Unit	Benchmark	2015	2019-20
Water supply				
i. Population covered by direct supply	%	100	66	80
ii. Per capita supply	LPCD	135	104	135
iii. Extent of metering	%	100	8.5	20
iv. Non-revenue water	%	15	57	25
v. Quality of water supplied	%	100	60	100
vi. Daily hours of supply	hours	24	11	13
vii. Cost recovery	%	100	60	20
viii. Efficiency in collection of user charges	%	90	41	70
Sewerage				
i. Coverage of toilets	%	100		70
ii. Coverage of wastewater network	%	100	74	80
iii. Collection efficiency of wastewater network	%	100		60
iv. Adequacy of wastewater treatment capacity	%	100		60
v. Quality of wastewater treatment	%	100		100
vi. Extent of reuse and recycling of wastewater	%	20		0
vii. Efficiency in redressal of customer complaints	%	80		100
viii. Cost recovery	%	100	67	15
ix. Efficiency in collection of sewerage charges	%	90	41	60

Performance indicators	Unit	Benchmark	2015	2019-20
Solid waste management				
i. Household-level coverage of SWM services	%	100	25	88
ii. Efficiency of collection of municipal solid waste	%	100	86	95
iii. Extent of segregation of solid waste	%	100		10
iv. Extent of municipal solid waste recovered	%	80		15
v. Extent of scientific disposal of municipal solid waste	%	100		80
vi. Efficiency in redressal of customer complaints	%	80		95
vii. Cost recovery	%	100	0.4	5
viii. Collection efficiency	%	90		50

Patiala

Performance indicators	Unit	Benchmark	2015	2019-20
Water supply				
i. Population covered by direct supply	%	100	50	83
ii. Per capita supply	LPCD	135	124	130
iii. Extent of metering	%	100	5	45
iv. Non-revenue water	%	15	50	30
v. Quality of water supplied	%	100	60	100
vi. Daily hours of supply	hours	24	15	12
vii. Cost recovery	%	100	40	53
viii. Efficiency in collection of user charges	%	90	50	85
Sewerage				
i. Coverage of toilets	%	100	55	85
ii. Coverage of wastewater network	%	100	90	98
iii. Collection efficiency of wastewater network	%	100	40	65
iv. Adequacy of wastewater treatment capacity	%	100	100	80
v. Quality of wastewater treatment	%	100	90	100
vi. Extent of reuse and recycling of wastewater	%	20	20	20
vii. Efficiency in redressal of customer complaints	%	80	80	82
viii. Cost recovery	%	100	75	86
ix. Efficiency in collection of sewerage charges	%	90	49	59

Performance indicators	Unit	Benchmark	2015	2019-20
Solid waste management				
i. Household-level coverage of SWM services	%	100		98
ii. Efficiency of collection of municipal solid waste	%	100		95
iii. Extent of segregation of solid waste	%	100		18
iv. Extent of municipal solid waste recovered	%	80		2
v. Extent of scientific disposal of municipal solid waste	%	100		92
vi. Efficiency in redressal of customer complaints	%	80		40
vii. Cost recovery	%	100		77
viii. Collection efficiency	%	90		3

AMTS fleet and service-level indicators

Data	2015	2016	2017*	2018	2019	2020
Fleet description						
Fleet size	250	250	255	255	278	278
Average bus capacity	34+25	34+25	34+25	34+25	33+20	33+20
Total fleet capacity	14,750	14,750	14,750	14,750	14,734	14,734
Average seating capacity in each bus	34	34	34	34	33	33
No. of air-conditioned buses	184	184	189	189	278	278
Average age of buses	2.5	3.5	4.5	5.5	6.5	4.1
Bus routes & schedule						
No. of routes being operated	13	13	13	14	15	15
No. of buses per route	17	17	17	17	17	17
Total length of road covered by city bus services	97	97	97	101	101	104
Timings for bus services	6-23	6-23	6-23	6-23	6-23	7-19
No. of shifts for operating buses	2	2	2	2	2	2
No. of routes operational for all shifts	12	13	13	14	15	15
Output performance						
Percentage of buses operating at peak hours only	85%	85%	95%	95%	95%	95%
Average daily km travelled by each bus			220	200	200	170
No. of breakdowns per day				336	64	21
No. of accidents caused by city buses per day	1	1	1	1	0.26	0.37
Passenger loading & adequacy of capacity	1.30	1.30	82,933	1,37,769	1,40,723	29,797
Passengers per vehicle per day	255	265	360	599	506	106
Average peak occupancy ratio at maximum load point	80%	80%	90%	85%	150% ³⁴	NA
Average distance travelled per boarding (km)	6-7	6-7	6-7	6-7	6-7	6-7
Average load factor (passenger-km/space-km)	17%	17%	NA	36%	37%	51%

34 In 2020 peak occupancy of 150% is due to large number buses with a capacity of 20 people (luxury buses), were introduced.

Financial information of AMTS - INR million

Particulars	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Passenger Fare	918	865	798	820	795
Seasonal Pass	71	61	53	85	46
Special Vardhi (Dress)	23	7	11	12	8
Student concession	108	94	79	27	71
Scrap	0	5	14	-	-
Scrap store	20	2	13	7	-
Advertisement	81	19	73	179	128
Miscellaneous	84	87	89	140	189
Total Income	1,304	1,140	1,128	1,269	1,236
No. of Buses	805	744	685	661	659
Earning per Km	21.24	21.31	23.85	28.03	28.55
% farebox revenue	70%	76%	71%	65%	64%

Financial information of AJL - INR million

Item	2014-15	2015-16	2016-17	2017-18	2018-19
Income from operations	547.83	612.29	577.07	553.83	589.57
Other income	184.74	509.34	292.4	192.13	84.71
Total	732.57	1121.63	869.47	745.96	674.28
Expenditure	984.99	1178.44	1411.38	1290.39	1231.86
Surplus/Deficit	-252.42	-56.81	-541.91	-544.43	-557.58

Key operational statistics of AJL

S. No.	Items	2009	2010	2011	2012	2013	2014	2015	2016
1	Network length	13	39	45	52	80	96	97	97
2	No. of stations	20	61	67	80	124	149	152	152
3	No. of routes	1	4	5	7	9	12	12	12
4	Fleet size - buses	24	60	113	118	135	225	225	230
5	Buses on road	18	56	103	112	128	209	211	211
6	Peak headway - min	5	3-5	4-8	5-8	3-5	3-5	3-5	3-7
7	Off-peak headway - min	8-10	5-8	5-10	6-12	5-8	8-10	8-10	8-12
8	Avg. daily passenger (000)	20.2	102.2	136.0	109.7	113.8	121.2	126.6	130.4
9	Avg. daily vehicle (000 km)	3.6	14.3	20.5	22.5	32.9	48.6	48.7	48.2
10	Avg. daily cost INR Mn	71.5	269.8	374.3	533.2	764.3	985.0	1118	1411
11	Avg. daily earning INR Mn	25.7	206.8	324.6	462.3	566.3	732.6	NA	869.5
12	Operating Ratio	2.78	1.30	1.15	1.15	1.35	1.34	NA	1.62

Source: AJL 2018, Gujarat Samachar, 23rd April 2018.

Proceedings of workshop for Punjab held on June 29, 2021

Proceedings of Virtual Workshop/Webinar on Study on Urban Institutional Models for Service Delivery & COVID Response in Punjab cities

Date	Tuesday, June 29, 2021	India Time - 16:30 to 18:30
Venue	Online Webinar	
Organised by	World Bank, New Delhi	
Participants		
Government Institutions		
Mr. Ajoy Sharma	Managing Director, PMIDC	
Mr. V. P. Singh	General Manager, PMIDC	
Mr. Yashpal	Manager, PMIDC	
Ms Komal Mittal, IAS	Municipal Commissioner, MCA	
Ms. Poonamdeep Kaur, IAS	Municipal Commissioner, MCP	
World Bank		
Ms. Bhavna Bhatia	World Banks Lead Program Lead - Governance	
Mr. Raghu Kesavan	Senior Infrastructure Specialist and TTL, New Delhi	
Ms. Yarissa Lyngdoh Sommer	Co TTL, Senior Urban Specialist, Singapore	
Mr. Balakrishna Menon Parameswaran	Lead Urban Specialist, Washington DC	
Mr. Srinivasa Rao Podipireddy	Senior Water and Sanitation Specialist, New Delhi	
Ms. Binny Varma	Program Assistant	
Consultants – Urban Institutional Model Study		
Mr. Matt Glasser	Team Leader	
Mr. Don Elliott	Consultant for USA case studies	
Mr. Nishendra Moodley	Consultant for South Africa case studies	
Mr. Brijgopal Ladda	Consultant for India case studies	
Consultants, CRISIL Infrastructure Advisory – COVID-19 Response Study		
Mr. Abhay Kantak	Director, Urban Practice	
Ms. Gayatree Oak	Associate Director	
Mr. Suraj Iyengar	Manager	
Ms. Purti Joshi	Consultant	
Ms. Nirdesh Kumari D	Consultant	
Ms. V. Vishnu Priya	Intern	

Welcome and Introduction

Ms. Yarissa and Mr. Raghu Kesavan, welcomed all the participants, laid the brief agenda for the workshop and requested all the participants to introduce themselves.

Mr. Raghu in his opening remarks informed that as part of this institutional study, three institutional structures were evaluated, (a) services delivered by a department of a municipality; (b) services delivered by a corporatized entity, accountable to the municipality or municipal corporation; and (c) services provided by a state entity, serving many municipalities. The COVID-19 response study, which also looked into the institutional structure of local bodies point of view of handling pandemics.

Ms. Yarissa and Mr. Raghu were jointly moderating the proceedings of the workshop, Ms. Yarissa requested Mr. Ajoy Sharma to give his opening remarks and later requested Ms. Bhavna Bhatia to give opening remarks in context of World Bank partnership with Punjab.

Both Ms. Yarissa and Mr. Raghu moderated the proceedings of the workshop.

Opening Remarks

Mr. Ajoy Sharma, MD, PMIDC, appreciated the study on institutional models and was of the view that the learnings from international best practices can be best utilized to improve the models in Indian cities. He informed that they shall explore to implement the suggested reforms through forthcoming World Bank projects.

Ms. Bhavna Bhatia in her opening remarks, informed that Punjab is a core partnership state in their overall country strategy and in the recent meeting with the Chief Minister, Chief Secretary and the entire leadership team was of the view that this partnership needed to be strengthened further and the main focus areas of partnership would be urban infrastructure, urban governance, ground water management and how cities can be leveraged for economic development. Urban service delivery being one of the primary focus areas this study on institutional improvement would play a critical role in designing the World Bank project.

Presentation by Mr. Matt Glasser on Institutional Model Study

Mr. Glasser in his consolidated presentation on institutional structure of local bodies/utilities in India, USA and South Africa, brought out the different institutional structure in these three countries, he suggested that the best practices of other countries cannot be replicated in the Indian context, given the size of the Indian cities, income levels etc., they need to be tailor made to be adopted in Indian cities.

In his opening remarks he informed that as per the assessment in general, the institutional structure in India is weak as compared to USA and South Africa. He dwelled upon the various institutional structure and categorized various institutional typologies, of the 17 services across 8 cities those were reviewed as part of this study, 11 utilities are provided by the department of local body, 3 utilities by corporatized entity, 2 by special districts wherein a defined area where all services are provided by a single institution and it's like quasi government like structure governed by an elected Board by the citizens, and one utility through PPP in Mbombela water and sewer.

Mr. Matt categorized all institutions into two categories, how it's fragmented, Vertical and Horizontal fragmentation/integration, in a vertical integration each aspect is undertaken by a specialised agency, e.g., operation & maintenance for all services by a single specialised agency, while a horizontally integrated agency is wherein all aspects of service are handled by a single agency (policy, planning, financing, tariff setting and billing etc.), in India, services are vertically and horizontally fragmented, he discussed the issues of both the models, for an vertically integrated institutions for example an vertically integrated institution for design alone may not appreciate the operational issues, while an horizontally fragmented institution say for planning taken out of the purview of local body might be a major challenge.

He gave a brief outlook of overall institutional structure in Gujarat and some salient features about powers of local body, their authority, accountability and few institutional weaknesses and primarily it is observed that in terms of borrowing powers, land use change and approval of organizational structure, they are subordinate to state government, while in case of municipal council they need to take approval for any changes in tariff and user charges. The study observes that there is gap between citizens and municipal council due to lack of direct authority.

Mr. Matt informed that the authority or strength of an institution can be assessed from four perspectives; (a) Authority; (b) Accountability; (c) Effectiveness; and (d) Equity perspective, in order to address the vertical and horizontal perspective the study indicated reforms at three levels, (a) long term reforms that will be giving cities more powers by constitutional amendment or changes in the state laws; (b) explore special district approach or

horizontal integration of services in a particular city; and (c) short-term or easy solution like strengthen the authority of council over Commissioner, actively and continuously involve citizens in capital and budget planning, corporatize a service, subject to strong governance arrangements or by undertaking enterprise fund accounting. It is observed that the first two options are difficult to implement as they would need constitutional or legal amendments.

Presentation by Abhay Kantak on Institutional Response to COVID-19 Management

Mr. Abhay presented the Covid response study undertaken for three cities, Ahmedabad, Amritsar and Chennai. In his presentation, he talked about various institutional arrangements that were observed in the three cities with respect to COVID-19 management, e.g., in Amritsar the district administration performed the nodal role, while for both Chennai and Ahmedabad, the respective municipal corporations played the nodal role in COVID-19 management. The CRISIL study suggested following reforms:

- a) Local governments are uniquely positioned for disaster response due to natural proximity to citizens. The Disaster Management Act, 2005 empowers district administration, not local governments, to act as nodal agency at local level. There is a need to amend the Disaster Management Act 2005 to empower local bodies in handling disaster and as a pre-requisite, provide autonomy to local bodies in decision making process in normal circumstances;
- b) The current planning framework focuses on disaster response rather than preparedness, and not annually updated. The development plans need to include assessment the vulnerable areas, monitoring processes the various issues of disaster, infrastructure plan for disaster management and financing plan for creating the required facilities;
- c) There is a need to establish a dedicated department/cell at ULB level to monitor disasters and undertake disaster management activities in a focused manner. Along with this, a dedicated epidemic cell under Health Department (as it is present in AMC) would also help in monitoring outbreaks of potential diseases and in being better prepared for such events; and
- d) Disasters such as COVID-19 pose an additional financial burden on local governments, whose resources are also committed for other essential services. Hence there is a need to set up a city level disaster relief fund which may be jointly funded by state government and the local government.

Feedback Session on Institutional Model Study

Mr. Srinivas Rao Podipireddy of World Bank, appreciated the study and said that it was an eye opener for him and the situation is not as bad as expected. As per his assessment post 1980 most of states have curtailed the powers of local bodies and there was no effort to strengthen or change the institutional model, though the intent of 73rd and 74th Amendment was to empower local bodies, but the state governments were not willing. He indicated that in some states like AP there most of ULB staff are from State cadre, engineering, health, planning, and as they belong to state, practically they have no ownership of ULB and act as an extension of the state government.

Mr. Balakrishna Menon, appreciated the study and suggested it should be taken to a broader audience from different states.

Mr. Ajoy Sharma welcomed the recommendations, and said that they are working on various aspects including transparency and they would further explore some of these institutional development recommendations as part of the World Bank Project. Mr. Sharma also said that they have already initiated some steps for resource mobilization by allowing cities to move towards volumetric tariff and reforms in property taxation system.

Ms. Poonamdeep Kaur, Commissioner of Patiala informed that in all aspects of ULB functioning the Commissioner takes feedback from the elected representatives and with regard to dependence on the state her view that this was because most ULBs lack their own resources and are dependent on the state for funding various projects and the programme grants. In general, the elected council is reluctant to revise tariff and raise any new resources.

Ms. Komal Mittal, Commissioner Amritsar was of the view that Health recommendations need to be reviewed from the point of view in Punjab. Health is a state function and the cities have very limited role, hence these recommendations need to be discussed at state level. As far as urban reforms are concerned the cities are moving ahead with volumetric tariff, bringing property tax assessments on GIS platform. In addition, Amritsar is exploring to setup a water utility company for which discussions are being held, in context of delegation of powers, resource mobilization strategy to make the utility financial sustainable.

In context of water utility, Mr. Srinivas suggested as World Bank has a lot of experience in this area and the services of USA and SA experts' who are involved in the institutional study can also be utilized, the learning of Joburg water might be of great help.

Presentation by International Experts on Institutional Model Case Studies in USA & South Africa

Mr. Don Elliott, presented the case studies of USA, primarily the institutional structures which he discussed were services by city departments in the cities of Dayton and Chicago. The other main structures unique to USA were:

- a) Home Rule Charter is used in several American states, where the state government authorizes medium to large cities adopt their own local constitution. It could be approved by state legislative assembly and by the voters of the ULB in question. It would modify and customize the governance rules for that particular ULB, without affecting the general legislative framework; and
- b) Special District is rather common in the US – a special district is what we call quasi-governmental or special purpose government. A special district does not have the legislative powers of a municipality, but a special district typically does have the power to set fees and tariffs for the services it provides, and to levy property taxes which would be levied and collected alongside the municipal property taxes and other local government property taxes.

Mr. Nishendra Moodley, presented the institutional structure of South African cities and he presented four institutional structures:

- a) Mbombela solid waste, its standard municipal department, internal accountabilities managed through institutional plans and performance management system;
- b) Mbombela water concession, it is a 30-year concession, except for law enforcement the concessionaire is responsible for all aspects of service, the performance rates as good;
- c) Joburg water, it's a corporatized entity, governed by Board, which has contract with municipality to deliver services, the performance rates as good; and
- d) Johannesburg Roads Agency, a not-for-profit company owned by Municipality, the model is not so successful due to governance and political reasons.

Closing Remarks and Thanks

Mr. Raghu and Ms. Yarissa Sommer thanked all the participants and informed that based on the suggestions the draft report shall be submitted.

Proceedings of workshop for Gujarat held on July 13, 2021

Proceedings of Virtual Workshop/Webinar on Study on Urban Institutional Models for Service Delivery & COVID-19 Response in Gujarat cities

Date	Tuesday, July 13, 2021	India Time - 16:30 to 18:30
Venue	Online Webinar	
Organised by	World Bank, New Delhi	
Participants		
Government Institutions		
Mr. RK Mehta	Dy Municipal Commissioner, Ahmedabad Municipal Commissioner	
Mr. Harpal Singh Zala	Additional Chief Engineer (Water Projects), AMC	
Mr. Falgun Mistry	Additional City Engineer, AMC	
Dr. Chirag Shah	Dy Medical Officer of Health, AMC	
Mr. Rakesh Bodiwal	Deputy City Engineer, AMC	
Mr. Ketan Shah	Deputy City Engineer, STP, AMC	
Mr. UK Madiya	Deputy City Engineer, STP, AMC	
Ms. Neha Upadhyay	Environmental Engineer, AMC	
Mr. Rutvij Patel	Environmental Engineer, AMC	
Ms. Darshana Patel	Environmental Engineer, AMC	
Mr. Manish Shah	Deputy Assessor and Tax Collector, AMC	
Mr. Pranav Kumar	Chief Officer, NNP	
Mr. Chandresh Gandhi	In-charge Municipal Engineer, NNP	
Mr. Pares Khilsagar	Water Supply & SWM Engineer, NNP	
World Bank		
Mr. Raghu Kesavan	Senior Infrastructure Specialist and TTL, New Delhi	
Ms. Yariya Lyngdoh Sommer	Co TTL, Senior Urban Specialist, Singapore	
Mr. Roland White	Global Lead for City Management, Governance and Financing, Washington DC	
Mr. Harsh Goyal	Urban Development Specialist, Washington DC	
Ms. Binny Varma	Program Assistant	
Consultants – Urban Institutional Model Study		
Mr. Matt Glasser	Team Leader	
Mr. Don Elliott	Consultant for USA case studies	
Mr. Nishendra Moodley	Consultant for South Africa case studies	
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Consultants, CRISIL Infrastructure Advisory – COVID-19 Response Study		
Mr. Abhay Katak	Director, Urban Practice	
Ms. Mehali Patel	Associate Director	
Ms. Gayatree Oak	Associate Director	
Mr. Suraj Iyengar	Manager	
Ms. Perti Joshi	Consultant	
Ms. V. Vishnu Priya	Intern	

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Mr. Raghu moderated the proceedings of workshop.

Opening Remarks

Mr. RK Mehta, Deputy Municipal Commissioner of AMC, thanked the World Bank for taking up the two studies and in his introductory overview of Gujarat institutional structure, he mentioned about the autonomy and authority of the council and their decision making powers, he informed that they have gone through the report and after the presentation he and his team shall provide their observations on the findings of study and recommendations.

Presentation by Mr. Matt Glasser on Institutional Model Study

Mr. Matt Glasser in his consolidated presentation on institutional structure of local bodies/utilities in India, USA and South Africa, brought out the different institutional structure in these three countries. He suggested that the best practices of other countries cannot be replicated in Indian context, given the size of the Indian cities, income etc. They need to be tailor-made to be adopted in Indian cities.

In his opening remarks he informed that as per the assessment in general, the institutional structure in India is weak as compared to USA and South Africa. He dwelled upon the various institutional structure and categorized various institutional typologies, of the 17 services across 8 cities those were reviewed as part of this study, 11 utilities are provided by the department of local body, 3 utilities by corporatized entity, 2 by special districts within a defined area where all services are provided by a single institution and it's like quasi government like structure governed by an elected Board by the citizens, and one utility through PPP in Mbombela water and sewer.

Mr. Matt categorized all institutions into two categories, how it's fragmented, Vertical and Horizontal fragmentation/integration. In a vertical integration each aspect is undertaken by a specialised agency, e.g., operation & maintenance for all services by a single specialised agency, while a horizontally integrated agency is wherein all aspects of service are handled by a single agency (policy, planning, financing, tariff setting and billing etc). In India, services are both vertically and horizontally fragmented. He discussed the issues of both the models, e.g. a vertically integrated institution for design alone may not appreciate the operational issues, while an horizontally fragmented institution, say for planning, is taken out of the purview of the local body might be a major challenge.

He gave a brief outlook of overall institutional structure in Gujarat and some salient features about powers of local body, their authority, accountability and few institutional weaknesses and primarily it is observed that in terms of borrowing powers, land use change and approval of organizational structure, they are subordinate to the state government, while in the case of the municipal council, they need to take approval for any changes in tariff and user charges. The study observes that there is a gap between citizens and the municipal council due to lack of direct authority.

Mr. Matt informed that the authority or strength of an institution can be assessed from four perspectives: (a) Authority; (b) Accountability; (c) Effectiveness; and (d) Equity perspective, in order to address the vertical and horizontal perspective the study indicated reforms at three levels: (a) long term reforms that will be giving cities more powers by constitutional amendment or changes in the state laws; (b) explore special district approach or horizontal integration of services in a particular city; and (c) short-term or easy solutions like strengthen the authority of council over Commissioner, actively and continuously involve citizens in capital and budget planning, corporatize a service, subject to strong governance arrangements or by undertaking enterprise fund accounting. It is observed that the first two options are difficult to implement as they need constitutional or legal amendments.

Feedback Session on Institutional Model Study

After the presentation Mr. Raghu opened the session for feedback from city officials, Mr. Mehta of AMC indicated that there are certain differences between the powers of Corporation and Municipality, Normally, the Corporation is not subordinate to the state, it is only that the Commissioner reports to state government from his/her service performance perspective, while for all administrative purpose the council, the board has authority and they have full powers to undertake any work once approved by standing committee or the board.

Also, there is continuous feedback from the citizens through ward committees headed by Assistant engineers, the state level institutional are only intermediary between AMC and state for transfer of funds, project monitoring etc., but no way AMC has any reporting obligation to any of the state level nodal institutions (GUDC, GMFB, GUDM etc.) for project design, approval. Though the commissioner prepares budget, but it needs to be ratified by standing committee, for accounting purpose all the budget items are coded, hence there is scope for ring fencing, but spending is based on budget allocation and not based on the income from particular service. In Ahmedabad, taxes and levies decided by the municipal board, all revenues come to the municipal corpus, but spending is only within the limits set in the budget and the projects needs to be fit within the available and approved budget.

Mr. Mehta was of view that AMC need to have long-term vision, though the executive has long-term vision but the councilors also need to have such long-term vision, which is currently limited to 5-10 years. Also, AMC has many SPVs, which have elected representatives on the Board, hence from all perspectives AMC has all required powers for effective functioning. Mr. Zala has also confirmed that the budgeting is ring fenced from costing point of view.

Mr. Pranav Kumar, Chief Officer of NNP, has echoed the views of AMC, and said that for all practical purpose the standing committee is powerful enough to take all financial and procurement decision, only for large scheme planning and design aspects GUDC, GMFB or GUDM are involved depending on the sources of project funding.

Presentation by Abhay Kantik on Institutional Response to COVID-19 Management

Mr. Abhay presented the Covid response study undertaken for three cities, Ahmedabad, Amritsar and Chennai. In his presentation, he talked about various institutional arrangements that were observed in the three cities with respect to COVID-19 management, e.g., in Amritsar the district administration performed the nodal role, while for both Chennai and Ahmedabad, the respective municipal corporations played the nodal role in COVID-19 management. The CRISIL study suggested following reforms:

- a) Local governments are uniquely positioned for disaster response due to natural proximity to citizens. Disaster Management Act, 2005 empowers district administration, not local governments, to act as nodal agency at local level. There is a need to amend Disaster Management Act 2005 to empower local bodies in handling disaster and as a pre-requisite, provide autonomy to local bodies in decision making process in normal circumstances;
- b) The current planning framework focuses on disaster response rather than preparedness, and not annually updated. The development plans need to include assessment the vulnerable areas, monitoring processes the various issues of disaster, infrastructure plan for disaster management and financing plan for creating the required facilities;
- c) There is a need to establish a dedicated department/cell at ULB level to monitor disasters and undertake disaster management activities in a focused manner. Along with this, a dedicated epidemic cell under Health Department (as it is present in AMC) would also help in monitoring outbreaks of potential diseases and in being better prepared for such events; and
- d) Disasters such as COVID-19 pose an additional financial burden on local governments, whose resources are also committed for other essential services. Hence there is a need to set up a city level disaster relief fund which may be jointly funded by state government and the local government.

Feedback Session on Institutional Response to COVID-19 Management Study

Ms. Yarissa, requested, if the participants have any views on COVID-19 response study and reforms suggested for handling pandemics in the state, participants had no specific comments on the study and proposed reforms.

Presentation by International Experts on Institutional Model Case Studies in USA & South Africa

Mr. Don Elliott, presented the case studies of USA, primarily the institutional structures which he discussed were services by city department in city of Dayton and Chicago the other main structure which were unique to USA were:

- a) Home rule charter, Home Rule Charter that is used in several American states, where the state government authorizes medium to large cities adopt their own local constitution. It could be approved by state legislative assembly and by the voters of the ULB in question. It would modify and customize the governance rules for that particular ULB, without affecting the general legislative framework, they still have to comply with federal and state laws, or you get sued. For example, on water quality; and
- b) Special District is rather common in the US – a special district is what we call quasi-governmental or special purpose government. A special district does not have the legislative powers of a municipality, but a special district typically does have the power to set fees and tariffs for the services it provides, and to levy property taxes which would be levied and collected alongside the municipal property taxes and other local government property taxes.

Mr. Nishendra Moodley, presented the institutional structure of South African cities, he presented four institutional structures:

- a) Mbombela solid waste, its standard municipal department, internal accountabilities managed through institutional plans and performance management system;
- b) Mbombela water concession, it's a 30-year concession, except for law enforcement the concessionaire is responsible for all aspects of service;
- c) Joburg water, it's a corporatized entity, governed by Board, which has contract with municipality to deliver services, Joburg was good for first ten years, but is now deteriorating; and
- d) Johannesburg Roads Agency, a not-for-profit company owned by Municipality, the model is not so successful due to governance and political reasons.

Institutional structures are merely enabling – they do not guarantee success. They need to be supported by culture.

Closing Remarks and Thanks

Mr. Raghu requested the participants, if they have any observations, as there are no specific observations. Mr. Raghu and Ms. Yarissa thanked all the participants and informed that based on the suggestions the draft report shall be submitted.

Volume 2B

Country Report of South Africa



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INTRODUCTION



This paper contributes to a study on comparative models for the governance of urban services being undertaken by the World Bank. It provides a background to urban governance in South Africa and examines four service delivery governance case studies, two each in the Cities of Johannesburg and Mbombela. It provides an overarching analysis of finding and provides some lessons for application in Indian Cities.

The South African context

South Africa's 1996 post-apartheid constitution created three spheres, rather than tiers, of government: national, provincial, and local which the constitution describes as distinct interdependent, interrelated. Urban governance, framed by the constitution, is rooted in a developmental vision that is rights-based and framed by a Bill of Rights that includes a set of socio- economic rights, to be progressively realized.

The constitution enjoins the three spheres of government in South Africa to govern in a manner that is informed by an ethos of co-operation. The constitution also incorporates the principle of subsidiarity, in that if a service function that can capably be delivered by a municipality in the local sphere of government, it should. Finally, the constitution provides that governance should be participative, involving people in all parts of its working.

South Africa's local government system, which was designed while the constitution was being negotiated, was shaped in the seminal 1998 White Paper on Local Government. This envisaged a fundamentally different local government system for the democratic era, necessitating sector-wide reform. This was later manifested in the suite of new laws that define and guide the country's municipalities. The Municipal Structures Act (1998) the Municipal Systems Act (2000), and later the Municipal Finance Management Act (2003) read with other local government and sectoral legislation define South Africa's new local government system.

The Demarcation Act (2000) created the basis for 'wall-to-wall' municipalities, in which the entire country is divided up into municipalities, and the creation of metropolitan municipalities in the largest urban areas. There are currently eight metropolitan municipalities as determined by the Municipal Demarcation Board.

Outside metropolitan areas SA has a two-tier local government system with district municipalities and local municipalities that fall entirely within the boundary of a district municipality. The constitution, in Schedules 4B and 5B, allocates powers and functions to local government. In areas governed by local and district municipalities these are divided between the municipal types.

Electoral and representative system for cities

All municipalities are governed by a municipal council, whose members are elected in nation-wide municipal elections every five years. These follow national and provincial elections that take place two years earlier, also in a five-year cycle. In local elections, citizens vote on two ballots, for a directly elected ward representative and for a political party to govern the municipality. Municipal councils are made up of ward councilors, representing constituencies living in demarcated wards (50% of seats) and proportional representatives, allocated proportionally to political parties comprising the remaining 50% of council seats. Councils adopt the term of office plan for the municipality, its Integrated Development Plan (IDP), budgets, performance indicators and is charged with the ongoing oversight of the performance of the administration through reporting and the adoption of quarterly and annual performance and audit reports. Councils also pass municipal by-laws.

It is worth noting there since the start of the democratic local government era in 1995 there have been a growing number of metropolitan municipalities, in the large urban areas, that have not emerged from elections with clear majorities. This has necessitated the creation of coalitions, new to SA's democratic politics. For the most part these have, over the last 10 years, proven to be highly volatile governance arrangements.

Mayors are elected by the council and are not directly elected by voters, or directly accountable, to voters, but rather to the ruling political party, or coalition. In addition to a Deputy Mayor, councils also elect a Speaker, who convenes the council.

Three forms of municipal executive system exist: The Executive Mayoral System, the Executive Committee System, and the Plenary Executive System, the latter applying to sparse rural municipalities where executive authority is vested in the small municipal council.

In the Executive Mayoral System, all executive authority resides with the Mayor who appoints a Mayoral Committee (MAYCO), to assist and advise the Mayor, and who can have delegated powers. MAYCO members serve at the pleasure of the Mayor and do not reflect political party proportionality. They often represent only the majority party and in recent cases, where municipalities are governed by coalitions, MAYCOs include small parties that have been 'king-makers' in coalitions, with disproportionate representation.

It has been argued that Executive Mayoral systems arose in the immediate post-apartheid period to provide for strong mayoral powers especially in cities, to drive a transformation and development programme. However, these transformation and development programmes have been compromised by 'state capture', corruption and mismanagement. Much of which has been enabled by a highly porous interface between elected politicians and the administration. This interface has provided disproportionate powers to politicians which has undermined the development of an independent and professional public administration.

Within the Executive Committee system, executive authority lies with a committee directly elected to service portfolios by the council. The aim of this model was to allow for proportional representation of political parties in the executive. However, where there are clear majorities, the ruling party has dominated the executive committee and emulated the Executive Mayoral system. An amendment to the Municipal Structures Act to compel proportionality in Executive Committees is before parliament. The author and other analysts have argued that Executive Committee systems, with required proportionality, are a more suitable form of governance for political plurality and sustainable coalitions.

Management

South Africa's municipalities are led administratively by a Municipal Manager, a significant departure from the apartheid-era town clerks, seen to be administrators and enforcers of by-laws. In cities, Municipal Managers

are often referred to as City Managers, but their powers are legally the same. They are the head of the administration and its chief accounting officer.

The post of Municipal Manager was an attempt to emphasise a professional CEO role, drawing from new public management thinking, and integrating the idea of local government as a developmental actor, led by a professional that would deliver a development programme and vision for a municipal area. Municipal managers are appointed by councils on a 5-year performance-based contract, aligned to the political term of office, but are directly accountable to the Executive Mayor or to the Executive Committee in their respective systems. Similarly, senior managers that report to municipal managers are also appointed by councils on 5-year performance contracts. Municipal managers and their senior management must have annually revisable performance agreements against which their performance is reviewed.

Due to concerns relating to the practice of 'cadre deployment', in which political parties determine who will fill these positions based on political rather than administrative considerations, and trends that weakened the professional capability and independence of these positions, the Municipal Systems Act was amended in 2011. This amendment, amongst other changes, banned municipal managers and their senior managers from holding office in political parties and created an administrative basis for appointment processes including minimum qualifications and competencies for appointed municipal managers. National Treasury regulations issued in 2007 in terms of the Municipal Finance Management Act (2003), also provide that there must be minimum qualifications for Accounting Officers, Chief Financial Officers and other senior management roles within municipalities and municipal entities.

Citizen and customer interface

Cities often conduct customer and citizen satisfaction surveys, usually providing sound data to inform evaluation, planning and service delivery. Cities tend to have a customer management and complaints system that varies in effectiveness, but mostly benefits middle-income customers. Education, literacy, internet connectivity and a lack of addresses within municipal billing systems has meant that these systems are not used to the same extent by poorer communities, and those living in informal settlements.

The constitution highlights the importance of citizen and community participation in South Africa's local governance system. The White Paper on Local Government's vision of developmental local government centred on citizen involvement in integrated planning, service delivery and performance management. Local government legislation further enabled communities to engage in developing priorities for the IDP and budgets of their municipalities as well as the key performance indicators for the municipality and its performance reviews.

Practice has indicated a propensity for 'tick-box' compliance when it comes to community consultation, rather than significant evidence of meaningful community participation. Legislation creates ward committees as forums for community engagement. However, ward committees too have proven prone to partisan capture, with ward councilors instrumental to their establishment and management. This is indicative of the limitations of 'invited spaces' that the municipality creates, as opposed to 'invented spaces' where accountability is driven by the community through campaigns and protests and more recently social audits being undertaken in cities by civil society. Social audits are a recent SA practice initiated by social movements and NGOs, drawing on the traditions of the Mazdoor Kishaan Shakti Sangathan and the Association for the Empowerment of Workers and Peasants which started in 1990 in Rajasthan, India. Social audits are intended to be community-led, evidence-driven and non-partisan accountability processes. Municipalities and city governments have been mostly reticent to constructively engage with accountability practices in 'invented spaces' and prefer to rely on participation in 'invited spaces' where they manage the agenda and frame the discourse.

Institutional arrangements for service delivery

The Municipal Systems Act and the Municipal Finance Management Act provide for forms of alternative service delivery, recognizing that municipalities should choose how best to deliver services and achieve the development ambitions of the municipality. These acts provide for municipal functions to be delivered in different ways by internal departments; through established municipal entities; through other publicly owned entities and privately-owned providers.

A distinction is made between the roles fulfilled by a service authority and a service provider. The authority role lies with the municipal council for all functions assigned to it, including developing strategies and plans, adopting budgets, setting tariffs and regulating and supporting the work of the service provider, whether the service is provided internally within a municipal administration, or externally contracted.

Despite 20 years of provision for alternative forms of service delivery and public-private partnerships, South Africa's experience of it remains significantly limited. Most partnerships with the private sector have been in the water sector for contracts including concessions; leases; build, operate and transfer schemes; management contracts; and operation and maintenance contracts.

Two important city case studies, each representing 20 years of implementation, are the concessions undertaken in Mbombela, in the largely rural province of Mpumalanga and the utility model of Joburg Water, a municipal entity in South Africa's largest city, Johannesburg in Gauteng province.

Regulation, supervision, support, and intervention

Schedules 4B and 5B of the South African constitution set out municipal powers and functions including when these are shared with the national or provincial spheres of government. Where relevant, national or provincial legislation set the norms and standards for municipal services and the mechanisms for its regulation.

The regulation of local government and cities is led by national government's Department of Cooperative Governance (DCoG), together with sectoral departments responsible for sectoral legislation (for example water, disaster management, waste management) that set out the norms and standards.

The constitution also charges national and provincial governments with supporting local government performance and building its capacity (section 154), and with intervening in the administration of local government if required (section 139). While there have been municipal interventions in the last decade, indications show low levels of effectiveness, with the criteria for intervention not clearly or consistently applied and often assumed to be politically motivated.

Twenty years of institutionalizing developmental local government in South Africa has seen a range of support programmes.

While regulation, supervisory monitoring, support and intervention roles are held by DCoG, for cities, South Africa's National Treasury has also played a key role. While the Municipal Finance Management Act delegated the oversight of local government finances to provincial treasuries, it retained this function in respect of the 17 largest municipalities, the eight metropolitan municipalities and nine secondary cities. In this way National Treasury has played a supervisory and support role to these 17 municipalities especially the metropolitan municipalities that it supports through its City Support Programme.

Service delivery case studies

The preceding section set out, at a high level, the institutional and governance framework for cities, to provide a common background for the four service delivery case studies, in two cities that follow.

Johannesburg

The City of Johannesburg's Municipality is responsible for local governance, services and development for a city that accounts for approximately 9% of the national population and 18% of national economic output (Philippe Marin, J.-P. 2009; Smith L., 2009). Moreover, it is the centre of South Africa's economically dominant province, Gauteng and is South Africa's largest city in terms of economy and population.

Johannesburg's municipal council was controlled by the African National Congress (ANC) from 1995 until the 2016 municipal elections, when an Executive Mayor from the Democratic Alliance (DA) presided over a coalition whose three largest members were the DA, the Economic Freedom Fighters (EFF), and the Inkatha Freedom Party (IFP). The 2019 resignation of that Executive Mayor, and a change in allegiance among coalition members, led to the installation of a new Executive Mayor from the ANC.

Johannesburg's council consists of 217 councilors, 109 are ward councilors and 108 are proportional representation councilors.

In the apartheid era Johannesburg (often called Joburg) consisted of 13 separate local government administrations, divided along racial lines. In the 1993-1995 local government transition period, these administrations merged into five councils, divided into two tiers. Following the first democratic municipal elections in 1995, the Greater Johannesburg Metropolitan Council (GJMC) formed the top tier, with four independent geographic sub-structures called Municipal Local Councils (MLCs) making up the second. Unfortunately, the implication of this merger was that the GJMC soon found itself in a situation where it was spending a lot of money, had very little revenue collection, no bank reserves and owed more money than it had. It was on the verge of bankruptcy.

In 1997, the Gauteng Provincial Government, with support from National Treasury, intervened, appointing a committee of ten specialists to assist the GJMC reverse its failing financial state. In 1998 a committee of 15 was appointed to restructure the GJMC organization to ensure sustainable service delivery (Development Bank of Southern Africa, 2010).

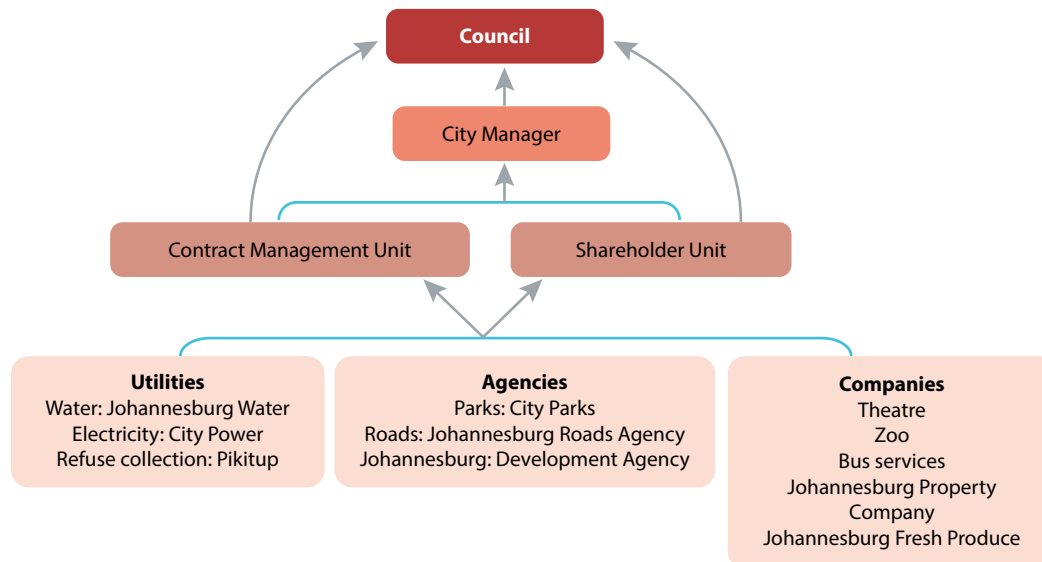
This committee developed a new organizational plan (iGoli 2002) as the basis of a city development strategy for Joburg. It aimed to financially restructure Joburg and reorganize service delivery by retaining the roles of providing strategy and setting policy frameworks and budgets, but that it would create "service delivery companies", wholly owned by the city to provide services on its behalf.

The thinking was that these companies would function like commercial companies contracted to the council; they would improve and extend services, bill for services provided, collect their own revenues, assume debt for capital projects, and make capital expenditure. They would be governed by Boards. A distinction was made between the council as the "client" and the companies as "service providers". The following independent companies were established to manage service delivery functions:

- Utilities to manage the three major trading services: water and sanitation, electricity and refuse collection;

- Agencies for services such as parks and cemeteries and roads, which were funded from the central rates account; and
- Corporatized entities for services that could attract user fees, such as the civic theatre, the zoo, and the bus service. However, these services still required large subsidies from the rates account to remain operational.

FIGURE 1 GOVERNANCE FRAMEWORK FOR THE iGoli 2002 MODEL



Source: Smith, 2006.

The governance of these entities would be managed through a Contracts Management Unit (CMU) regulating service delivery performance, and a Shareholder Unit (SHU) looking after the city's interest as a shareholder.

iGoli 2002 also established 11 administrative regions that divided up the City of Johannesburg footprint. This aimed to increase the interaction between citizens and the municipality, with more access to councilors and contact centres and walk in centres for providing aide to respond to complaints. This also aimed to strengthen the co-ordination of operations at an area level.

It should be noted that iGoli 2002 was strongly opposed by trade unions who saw it as the first step toward the privatization of municipal services.

The iGoli 2002 plan came into effect after the 2000 municipal elections which introduced the new local government system, set out in the constitution, the White Paper on Local Government and the local government legislation that followed. For Joburg, this meant that its two-tier structure would be amalgamated into one metropolitan municipality, the City of Johannesburg, and restructured according to the iGoli 2002 plan.

The case studies that follow focus on Joburg Water and the Joburg Roads Agency (JRA) and their relationships with the City of Joburg and its citizens.

Joburg Water

Services provided and scale

Joburg Water was set up as a water services provider for the City of Johannesburg, to provide all people of Johannesburg with access to quality water and sanitation services. It was mandated to undertake all water

services planning, infrastructure projects, operations and maintenance, a segment of customer care and for a time, part of the metering, billing, and revenue collection functions.

Rand Water, a water board and public entity governed by the Department of Water Affairs, would provide bulk water treated for drinking to Joburg Water.

Joburg Water's infrastructure assets in support of its business comprise:

- 127 reservoirs and water towers;
- 10 network depots;
- Four laboratories;
- 12 288 km of water distribution networks;
- 11 710 km of wastewater networks;
- 37 water pump stations;
- 38 sewer pump stations;
- 11 576 km of sewer collector network; and
- Six wastewater treatment works (Joburg Water, n.d.).

The entity supplies 1.6 billion litres of potable water per day, procured from Rand Water, through its water distribution network, 127 reservoirs and water towers, and 37 water pump stations. The company employs 2,716 people and functions in six operating regions, with ten network depots and six wastewater treatment plants.

Wastewater is collected and reticulated via eleven 710 km of wastewater networks and 38 sewer pump stations. Johannesburg Water treats 926 ml per day of sewage at its six wastewater treatment works, including two biogas-to-energy plants, where methane gas is converted to energy.

Organization

Governing body

Joburg Water was formed in November 2000 and started operations on 1 January 2001. It entered two contracts with the City of Johannesburg:

- A Sale of Business Agreement in which the council transferred its water and sanitation assets and over 2,500 employees to Joburg Water. Joburg Water paid the City R1.5 billion for its water and sanitation assets; and
- A 30-year Service Delivery Agreement which provided that initially 60% of the City's customers would be transferred from the City to Joburg Water. To carry out meter reading, pre-edits of billing, credit control and revenue collection functions (Development Bank of Southern Africa, 2010).

Within Joburg Water, a Board of Directors, would be appointed at an Annual General Meeting, by the sole shareholder to govern the entity. These Board members would ordinarily be external sector specialists bringing expert oversight and strategic advice to the functioning of the service. Commenting on the early 2001 to 2006 period, Smith (2006) argues that the pro-poor, equity-based orientation of City of Johannesburg politicians, did not always translate into a similar orientation amongst Board members, who were mainly concerned with efficiency and financial viability.

In 2001, the City of Johannesburg set up a Contract Management Unit (CMU) in the office of the City Manager to provide a regulatory oversight function over these utilities, agencies, and companies (UACs) in terms of their service delivery performance.

In 2003, the SHU was set up alongside the CMU. Looking after shareholder interest, the SHU was responsible for the corporate governance and financial viability of each of the UACs.

The CMU was responsible for monitoring the service delivery standards of the UACs to comply with legislation and provide legal assistance in setting up of service delivery agreements with the city as well as service level agreements among UACs.

The key function of the CMU included:

- To monitor and evaluate operational compliance relating to the provision of municipal services as set out in the individual Service Delivery Agreements entered between the City of Johannesburg and each UAC;
- Monitor and evaluate financial matters related to the Service Delivery Agreements (SDAs), for e.g. the evaluation of tariffs;
- Monitor and evaluate the City of Johannesburg's own compliance with its responsibilities in terms of the SDAs;
- Monitor compliance in the waste and electricity industries given the changes taking place in these sectors;
- Undertake research on benchmarking and tariffs;
- Monitor implementation by the UACs of the service standards set by the City of Johannesburg;
- Set key performance areas for each UAC; and
- Ensure the implementation of UAC policies through their business plans and tariff setting (Development Bank of Southern Africa, 2010).

Political oversight was through the CMU and SHU reporting to each portfolio committee of councilors charged with oversight of respective companies, with each chaired by the Member of the Mayoral Committee (MMC) responsible for that function. The SHU also reported to a specific shareholder sub-committee chaired by the Executive Mayor, including all the relevant MMCs.

The chairperson of each portfolio committee convened a quarterly meeting with the relevant utility board chairpersons, utility CEOs, CMU and SHU. According to Smith and Morris (2010), who both worked at the CMU in the 2001-2005 period, these were the most important mechanisms of accountability in the relationship between the city and its municipal entities.

It is understood that after the Democratic Alliance took control of the city in 2016, the CMU and SHU were combined into a single governance unit.

Executive management

The executive management of Joburg Water is central to this case study and can be understood within two very distinct phases, the first in which a management contract was in place for the utility's first five years (2001-2006), and thereafter (2006-2021).

Management contract (2001-2006)

Amongst the utilities in Joburg, only Joburg Water was earmarked to be a Public-Private Partnership (PPP), through a management contract. This model was pursued as water was the largest utility in terms of staff and

customers, was dealing with a significant non-payment problem in Soweto, the city's largest township, and it was deemed difficult to find local top management to turn the situation around (Philippe Marin, 2009).

While there was significant global and some South African experience of PPPs, this was a relatively unique management contract, in that it retained the legal form of a public entity, but leveraged international private sector expertise as top management to turn around the utility, while building internal capacity and transferring skills, for handover in a finite 5-year period.

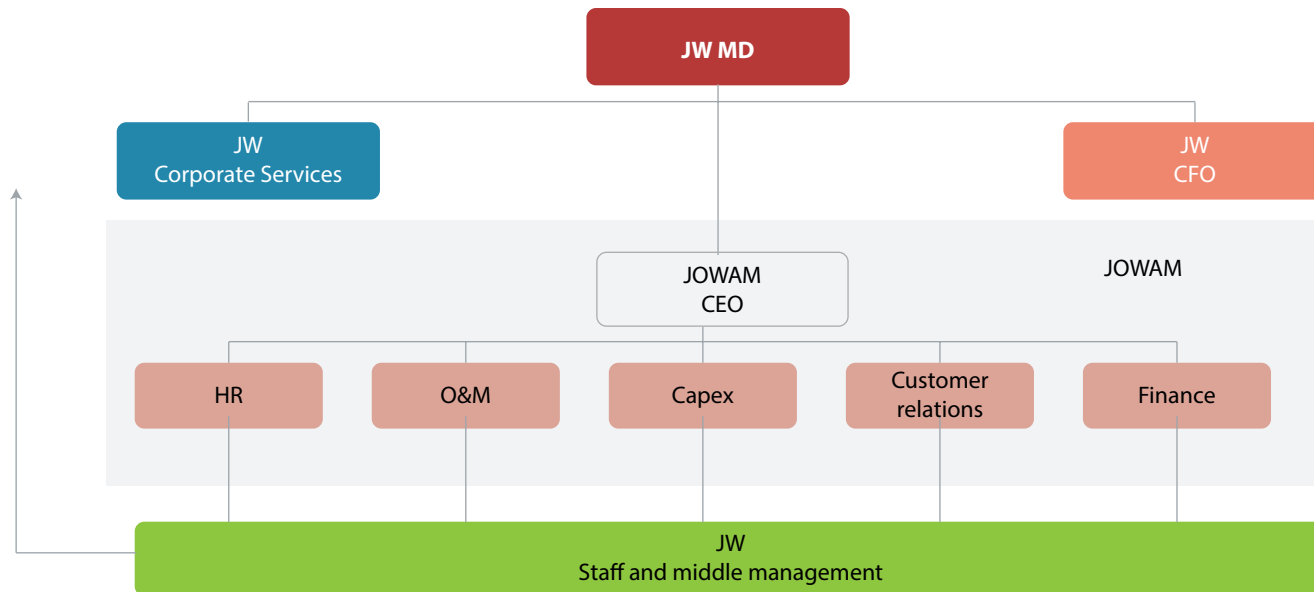
Through a procurement process started in 2000, Joburg appointed a consortium with a 5-year contract (April 2001 to June 2006) to assist Joburg Water with its operations. The contractor, known as Johannesburg Water Management (JOWAM), was a joint venture between the Suez Group of France, and its subsidiaries in the United Kingdom and South Africa.

Practically, the arrangement was that:

- Joburg was responsible for investment funding and potential funding shortfalls, if any;
- The board of Joburg Water was accountable to the City in terms of the provisions of the SDA; and
- JOWAM was responsible for the day-to-day management and functioning of Joburg Water (Development Bank of Southern Africa, 2010).

A critical aspect of JOWAM's appointment was a skill transfer to train Joburg Water employees so that over time these employees would be able to manage Joburg Water, with JOWAM managers deployed to Joburg Water reduced. JOWAM started in April 2001 with 13 managers; by the last year of the contract only two managers remained deployed to Joburg Water.

FIGURE 2 STRUCTURE OF EXECUTIVE MANAGEMENT OF JOBURG WATER (2001-2006)



Source: Philippe Marin, 2009.

JOWAM was paid a fixed management fee of R25 million over the five years of the contract (R5 million annually). In addition, JOWAM was to be paid a two-part incentive based on performance as follows:

- The first part of the incentive, which was not to exceed R20 million, was based on the performance of JOWAM in human resource development, decreased wastewater spillages and overflows, improved customer service, implementation of an annual capital investment programme, and improved facilities maintenance; and

- The second part of the incentive was linked to JOWAM's financial bid to improve the operational efficiency and financial viability of Joburg Water.

The financial cost of the management contract to Johannesburg Water was R67 million, consisting of R64 million to JOWAM and R3 million to an independent auditor (Van Rooyen, 2009). It should be noted that in the period of JOWAM's five-year management contract Joburg Water's total turnover was approximately R11 billion.

Joburg Water inherited a situation where services were relatively poor, especially in the former township areas. With JOWAM's support and guidance, Joburg Water developed a 3-year turnaround strategy which looked at the business holistically. The turnaround strategy identified the following major thrusts that needed to be addressed to support the business:

- level of unaccounted for water;
- payment levels;
- efficient cost management; and
- zero based budgeting.

The City provided Joburg Water with an interest carrying grant (as a form of a subsidy) of R230 million in 2002/3, R200 million in 2003/4, R240 million for 2004/5 and R240 million for 2005/6. This enabled capital programmes to proceed, as the full scale of operational problems in the systems Joburg Water had inherited were revealed (Van Rooyen, 2009).

The turnaround strategy was widely regarded as very successful, extensively reviewed, and documented for its innovation. By 2006, Joburg Water began to experience a turnaround. By 2007, Joburg Water made a profit more than R700 million with a positive cash balance more than R600 million for the June 2007 financial year. Joburg Water obtained its first unqualified audit in 2007 and has received an unqualified audit ever since.

One of the flagship projects embarked on as part of the turnaround strategy was Operation Gcin'amanzi (OGA) that aimed to address unaccounted for water in Soweto using prepayment meters. This proved extremely controversial with Joburg Water and the City challenged on the legality of prepaid water meters.

Joburg Water worked closely with the City and ward councilors to get community buy in for this project. Despite Joburg Water's efforts to raise public awareness, prepaid meters were perceived as a way of disconnecting households from services without due process being followed by the City. The Supreme Court of Appeal found in favour of Joburg Water and the City, ruling that while prepaid meters were unlawful in that they did not comply with the City's by-laws, the City did not have to remove the meters and allowed the City a period of two years to change the by-laws thus legalising the installation of prepaid meters. However, the City of Joburg did not pass the by-law.

There is significant consensus on the success of the management contract based on a range of indicators (Philippe Marin, 2009). However, Marin *et al.* observed the following:



"Beyond improving technical performance, the private operator played an essential role as a change agent, something which is often undervalued or misunderstood. It instilled in Johannesburg Water new corporate values based on efficiency and customer service, transforming the way civil servants think and act.

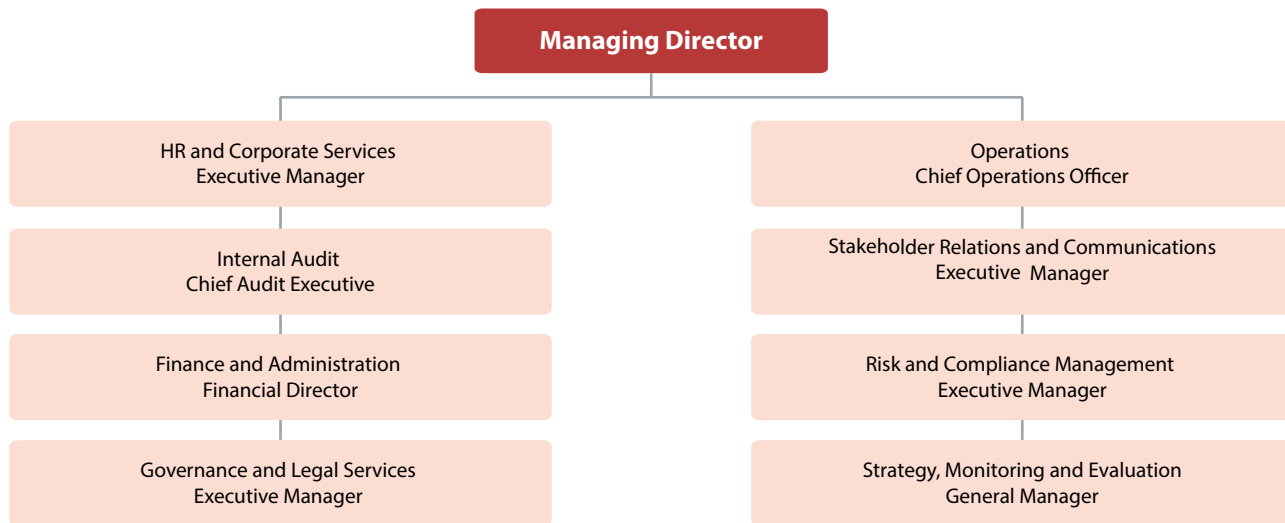
The new culture emphasized the empowerment of line managers, coached them in better operational practices, and held them to account for results. In this new environment, a dynamic was created in which the utility's staff and the private operator truly worked together to turn the utility around".



Post management contract

The management contractor incrementally handed over responsibility to the core Joburg Water institution. Executive responsibility has been led by a Managing Director since then. It should be noted that the council now requires all its' staff and those of the UACs to be on the same employee performance management system.

FIGURE 3 JOBURG WATER'S EXECUTIVE STRUCTURE IN 2018/19



Source: Joburg Water, 2020.

It is notable that of the nine positions in the executive structure in the Financial Year 2018-19, Annual Report indicates that only four, including that of Managing Director were filled while others were vacant with individuals acting in these positions.

Legal and institutional arrangements

As a tariff-funded service, capable of generating a surplus, Johannesburg Water (Joburg Water) was incorporated as a private company, under the Companies Act (2008) and started operating as a business on 1 January 2001. It was established prior to the commencement of the Municipal Systems Act and the Municipal Finance Management Act.

Although this legislation (which prescribes that a feasibility study is done prior to establishment of municipal entities) was not yet in place, feasibility studies were done in respect of all the utilities and corporate entities in Johannesburg prior to their establishment.

In many ways the experience of Joburg's restructuring informed some of the legislative requirements that were to follow.

Coordination with other urban agencies and services

While water was treated as an externally contracted utility, the municipality's Corporate Strategy and Corporate Planning functions were to play key coordination and integration roles across services, by developing strategies and spatial plans.

iGoli 2002 not only introduced UACs but also 11 administrative regions (now seven). There are now indications of significant service delivery problems in Johannesburg UACs, indicative of poor or deteriorating coordination.

Sibusiso Buthelezi, Board Chairperson of Joburg Water has said that “Joburg Water replaces about 100km of pipes every year, which means digging trenches and digging into roads. But once it has completed a particular project, responsibility shifts to the JRA, which has to seal the roads Joburg Water dug up”. Although the JRA bills Joburg Water for this work, it struggles to keep up, forcing Joburg Water, for reputational reasons to seal the roads themselves (Mailovich, 2021).

Nature and extent of ‘ring-fencing’ of departments

Figure 3, which illustrates the current executive structure, provides an indication of the functions undertaken internally by Joburg Water. It remains substantially ring-fenced, with core operational, stakeholder related, corporate services and financial management conducted internally. It must be noted that some core human resource functions, such as employee performance management have been recentralised within the council.

Of most significance to the Joburg Water case is its billing and revenue-raising capabilities. The SDA entered between Joburg Water and the City in 2001 provided that Joburg Water would assume responsibility for metering and revenue management of 60% of customers with the remaining 40% migrating over time to Joburg Water. As mentioned previously, the initial transfer of 60% did not take place as envisaged. Billing and revenue management continued to be done by City’s Revenue Management Unit in reality. Only approximately 30% of the top customers in revenue (mostly industrial, commercial, administrations and flat buildings) were migrated to Joburg Water. And it was only after two years of negotiations between Joburg Water and the City that meter reading for top customers was transferred to Joburg Water in 2003 and 2004. By 2006 Joburg Water had full control of only 45 000 customers representing 40% of its revenue base. In addition, its gradually became responsible for all meter reading (between 2004 and 2005) as well as all consumption data entry for the billing process (2005) for the remaining stock of metered connections. However, most revenue collection processes, as well as all billing process for un-metered connections in the townships (20% of billed revenues), remained with the City.

Joburg Waters revenue collection improved from 91% in 2002 to 95% in 2006, better than the City’s Revenue Management unit, which recovered 67% in 2002 and 69% in 2006. In addition, Joburg Waters meter reading also improved over time.

Project Phakama was initiated by the City in 2006 and started to be rolled out in early 2010. In terms of this project, the customer call centre function, and the credit control function in respect of customers currently managed by Joburg Water would migrate to the City, and the City would be a service provider to Joburg Water in respect of these services. The 396 customer services’ staff in Joburg Water were all seconded to the City in early 2010. The implementation of Project Phakama contradicted the provisions of the Sale of Business Agreement in terms of which Joburg Water was to be responsible for billing and revenue collection. Since then, customer and revenue management has also been centralised back within the council, an element that was key to utility model.

Oversight, autonomy, and accountability

Annual and other reports

As Joburgs utilities must comply with the Systems Act, the Municipal Finance Management Act, and the Companies Act, reporting compliance has been viewed as considerable. This includes quarterly reports for

the City's Governance Unit, and Board. These are aggregated into an Annual Report for Joburg Water in terms of the Companies Act and contributes to the reporting by the council to the public in terms of its annual report requirements.

Strategic direction establishment and review

Corporate Strategy and Corporate Planning undertake the strategy development for the City and its term of office IDP. Joburg Water participates in these discussions, but is expected to align its plan accordingly, as negotiated in the SDA and scorecard for Joburg Water.

Executive management authority delegations

The Board delegates full executive authority to the Managing Director.

Performance compacts, performance metrics, links to budgets and funding, and level of autonomy

Contracting is done through an annual SDA with the Governance Unit of Joburg Water. Additionally, a corporate scorecard aligned to the budget is agreed with the governance unit. A scorecard is also agreed with the Board including the indicators agreed with the governance unit. These form the basis of quarterly and annual reporting.

Accounting standards and practices

All municipalities and entities are required to use GRAP.

Auditing

Financial and performance auditing is conducted by internal audit first. They report to the audit committee set up for the entity. The Annual Report and annual financial statements are also audited by an external auditor on behalf of the Auditor-General.

Finances

Budgeting

Budgeting is significantly managed by the office of the Chief Financial Officer (CFO). According to an interview with a former CFO, Joburg Water like other entities is not allowed to borrow. They are required to use one Bank for combined city-wide cash management. Utilities were limited in their autonomy to budget. Much of capital budget was centrally held and prioritized, but utilities were given more autonomy in developing operating budgets for final alignment and approval by the City of Johannesburg.

The Joburg CFO meets all utility CFOs monthly and budgeting is done through this forum.

Sources and uses of operating revenues

Operating revenues are primarily based on consumer tariffs for water, complemented by the equitable share (a formula-driven allocation of national revenue) intended for service to indigents.

TABLE 1 OPERATING PERFORMANCE

	2017 (R'000)	2018 (R'000)	2019 (R'000)	2019 budget (R'000)
Revenue	R8,501,222	R10,088,096	R11,718,323	R11,585,560
Bulk purchases	R4,259,064	R4,799,538	R5,593,972	R5,624,094
Gross margin	R4,242,158	R5,288,558	R6,124,351	R5,961,466
Other income	R418,584	R534,305	R483,588	R203,704
Operating cost and interest	R4,477,704	R4,454,781	R4,854,214	R4,913,690
Net profit	R183,038	R1,368,082	R 1,753,725	R1,251,480

Source: Joburg Water, 2020.

For the 2020/21 year it has budgeted revenue of R14.1 billion and expenditure of R12.1 billion.

Sources and uses of capital for infrastructure investment

Joburg Water is not allowed to borrow or raise debt. This is done centrally by the municipality. In this way the council develops a capital budget for prioritized capital projects. The budget is funded from borrowing; infrastructure grants, such as the Urban Settlements Development Grant, and developer contributions. The budget prioritizes the funding of infrastructure projects aligned with the City's plans. This is generally for new connections in underserved areas, rehabilitation of reticulation and sanitation infrastructure waste-water treatment.

Fiscal risks and economic and budgetary impacts

Historically, Joburg's non-payment problem, particularly in Soweto, and broader non-revenue water, which still sits at 38%, provided significant risks for Joburg Water and its budget. This is likely to be exacerbated by fiscal consolidation and decreased infrastructure grants.

Transparency, citizen participation and other accountability mechanisms

Joburg Water has a Stakeholder Relations Department, and a stakeholder development strategy focused on reaching out to communities and councilors.

Water users in Joburg can report concerns about service delivery by phoning a Customer Service Call Centre or completing service cards at the Joburg Water regional offices. These are generally used by those with addresses, formal billing arrangements and access to communication infrastructure. It is unclear whether interaction with ward councilors regarding service delivery challenges has proved useful.

The annual report states that regular forums were held with targeted stakeholders, such as large water users, top 100 customers, prepaid water vendors and faith-based organizations. More than 80 public meetings were held to inform community members of upcoming projects in their areas. In addition, more than 70 visible service delivery meetings were attended (Joburg Water, 2020).

In terms of the SDA, Joburg Water was meant to establish Water User Forums to engage with users around their needs. There is little evidence of this having been done. Early community research studies, as well as customer surveys conducted, indicate that communities feel left out or uninvolved in decisions about water and sanitation despite efforts made by Joburg Water to run public education and awareness campaigns. From the documentation available it appears that Joburg Water must do more to ensure the establishment and

functionality of Water User Forums. In addition, the City, as the regulator, needs to ensure that Joburg Water complies with this aspect of the SDA so that communities are involved in and feel part of the process of how services are delivered.

Outcomes, including but not limited to

Any available service delivery indicators

In terms of service coverage to informal households, Joburg Water indicated that at the end of the Financial Year 2018-19:

- 87.18% had a Level 1 service (access to standpipe within 200 m of dwelling) from a baseline of 82.86% at the start of the year; and
- 41.61% had a minimum of Level 1 sanitation (ventilated improved pit latrine) from a baseline of 30.06% at the start of the year.

For that same year:

- Compliance with drinking water quality standard on E. Coli (SANS 241) was 99.7%
- Capital budget spent was 99.7%; and
- Final effluent compliance in all waste-water treatment works was 78%, against a target of 92%, and a baseline at the start of the year of 72%.

TABLE 2 PERFORMANCE OF JOBURG WATER ON CUSTOMER STANDARDS CONTRACTED BY THE CITY OF JOHANNESBURG

Service standard indicator	Service Standard	2018/19 Actual	Rating
Missing manhole covers replaced within 24 hours	95%	93%	☹️
Sewer blockages cleared within 24 hours	96%	96%	😊
Defective water meters repaired within three days	95%	92%	☹️
New water connections within 15 days	95%	75%	☹️
Burst water pipes repaired within 48 hours	95%	91%	☹️
Fire hydrants repaired within 48 hours	95%	81%	☹️
Stolen water meters replaced within 24 hours	95%	96%	😊
Leaking valves repaired within 48 hours	95%	96%	😊
Actual reading of water meters at end of the quarter	95%	90%	☹️
Planned water service interruptions completed within 12 hours (diameter >350 mm)	95%	99%	😊
Communication of planned service interruptions sent within seven days	95%	100%	😊
Communication of unplanned service interruptions sent immediately	95%	100%	😊

Legend

100% and above	😊	90% and above	☹️	Below 90%	☹️
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Source: Joburg Water, 2020.

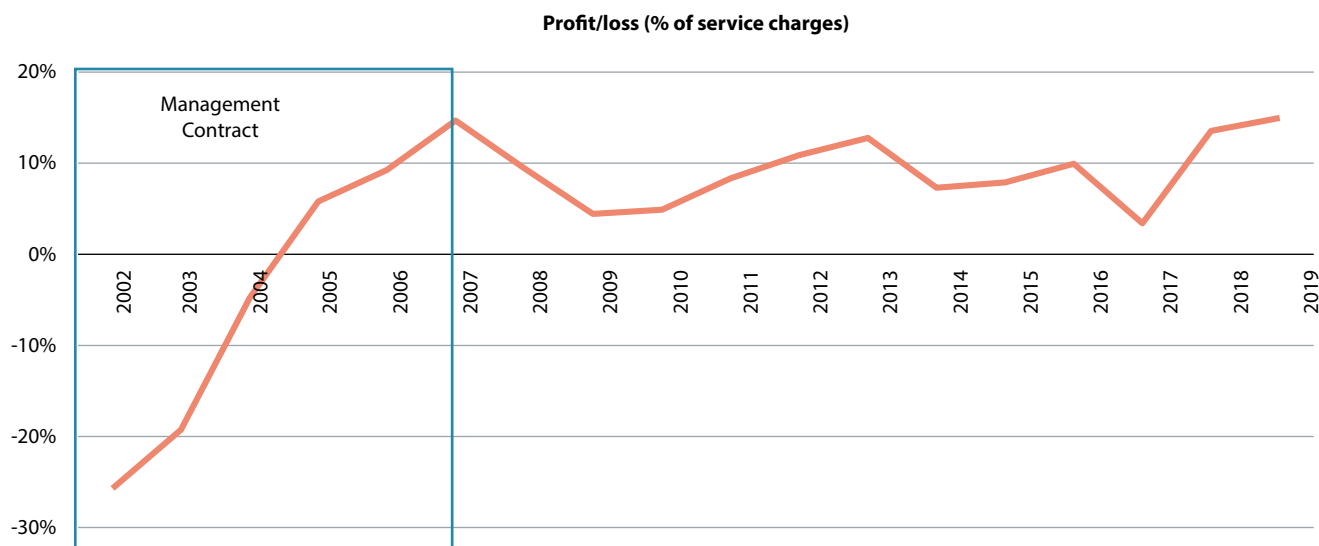
Public satisfaction

From its Annual Report the following indications are provided on public satisfaction (Joburg Water, 2020):

- An annual stakeholder audit was conducted which indicated that of the 100 stakeholders interviewed, 78% were happy with Joburg Water's overall performance;
- A significant number said they were unhappy experienced that led to negative ratings included sanitation issues and service interruption without prior notification. Failure by Joburg Water to resolve stakeholder concerns within the stated turnaround times and inaccurate meter readings were also identified as areas of concern;
- Joburg Water conducted a customer satisfaction survey for 2018-19 and achieved a 71% customer satisfaction level. While customers attested to the good quality and uninterrupted supply of water, concern was raised regarding the fault-reporting services. Customers stated that communication platforms are available, but not fully efficient to process customer demands, thereby affecting views on service excellence; and
- The Gauteng Provincial Government also conducted a quality-of-life survey in 2018, which confirmed the above satisfaction level results, indicating that 94% of Johannesburg's residents have access to piped water in their dwellings or properties. Furthermore, 84% of residents believe that the water they get is clean and of a good quality. Results indicated that 95% of residents are considered to have adequate sanitation.

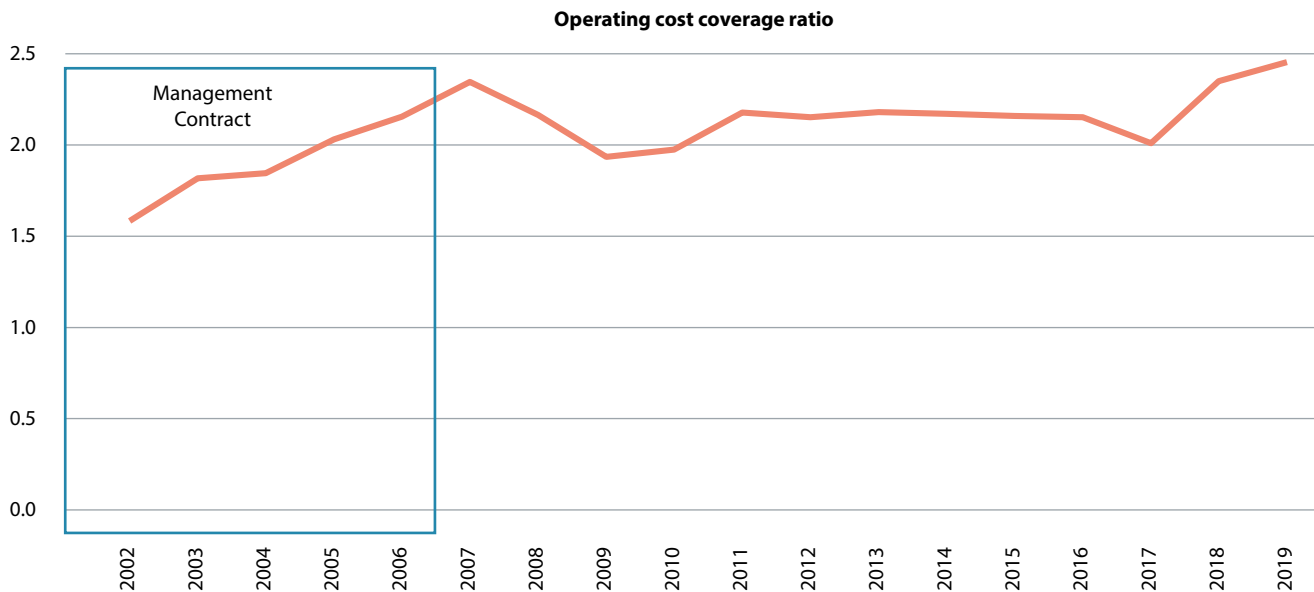
Financial and investment indicators

FIGURE 4 PROFIT AND LOSS AS A PERCENTAGE OF SERVICE CHARGES



Source: City Support Programme, 2021.

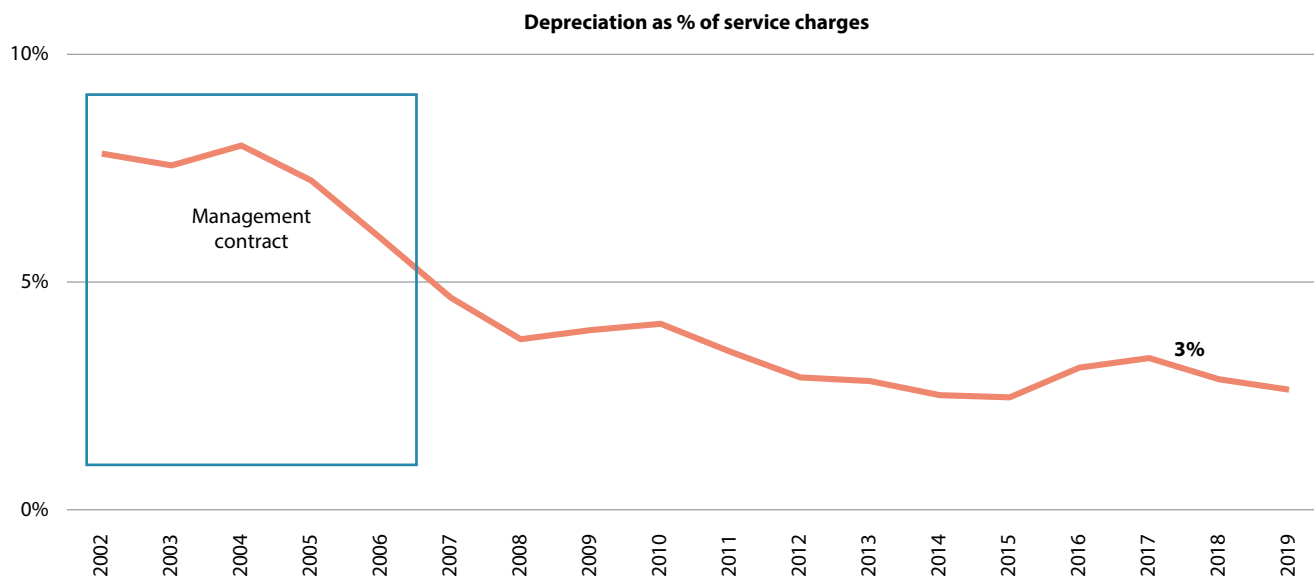
FIGURE 5 OPERATING COST COVERAGE RATIO



Source: City Support Programme, 2021.

Like the profit and loss position, the operating cost coverage ratio shows Joburg Water to be in a healthy position.

FIGURE 6 PROVISION FOR DEPRECIATION AS A PERCENTAGE OF SERVICE CHARGES

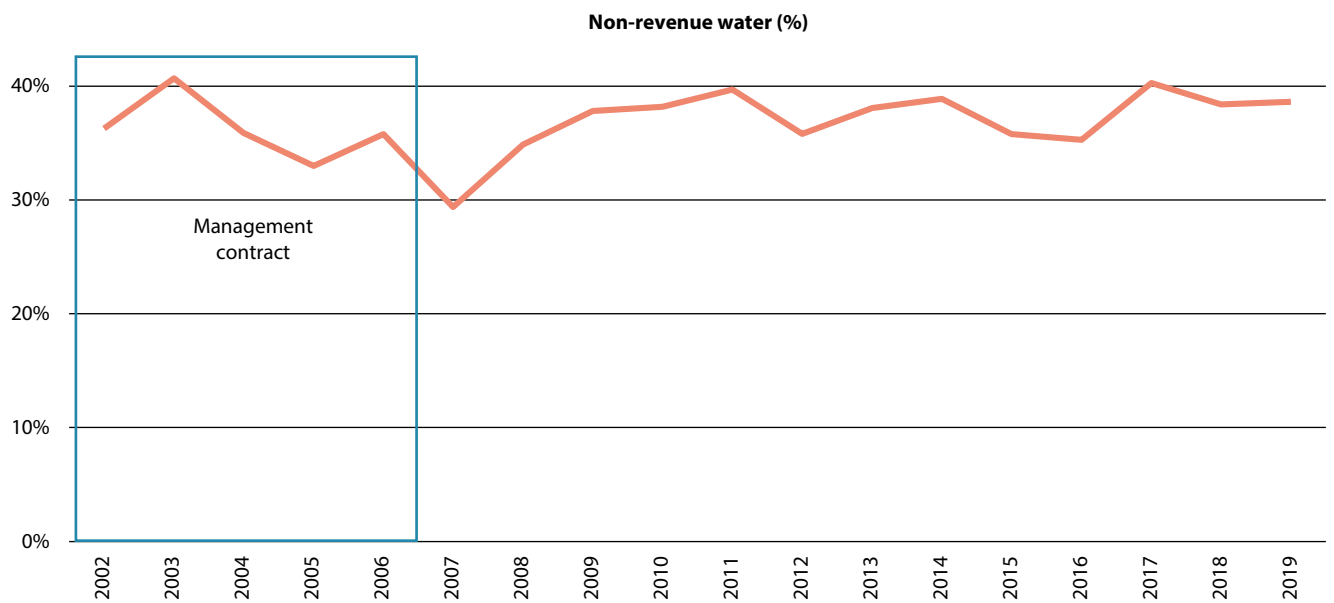


Source: City Support Programme, 2021.

The reduced provision set aside for depreciation at 3% may be insufficient.

Operational Performance

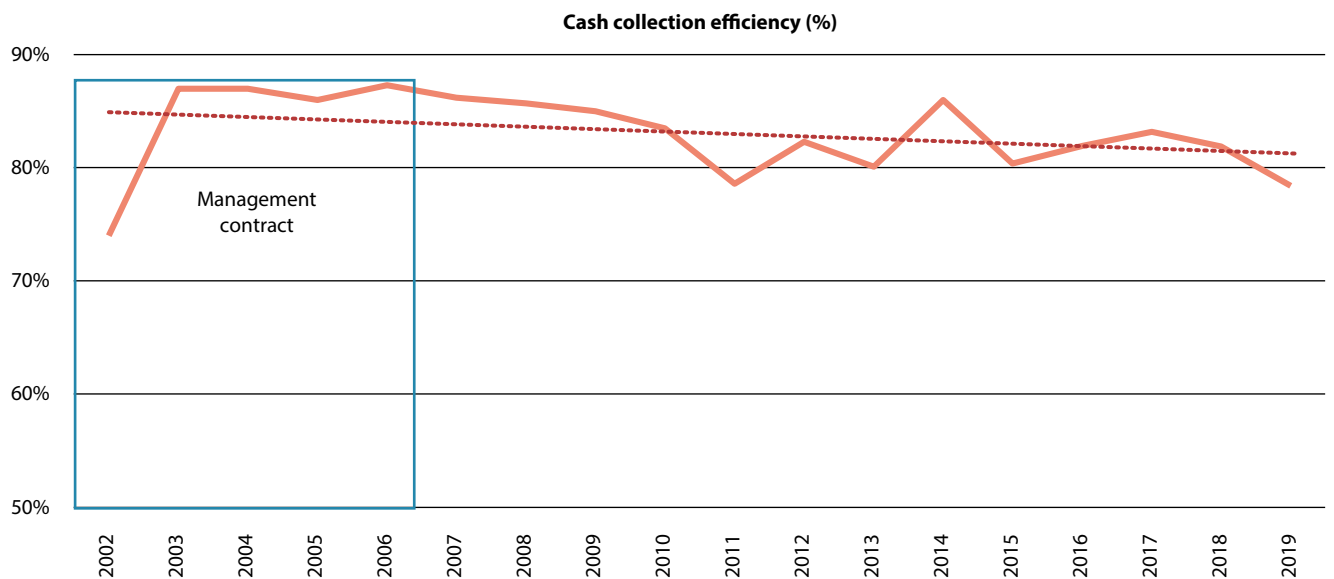
FIGURE 7 NON-REVENUE WATER FOR JOBURG WATER



Source: City Support Programme, 2021.

The management contract period started to bring non-revenue water down, but this is now worsening.

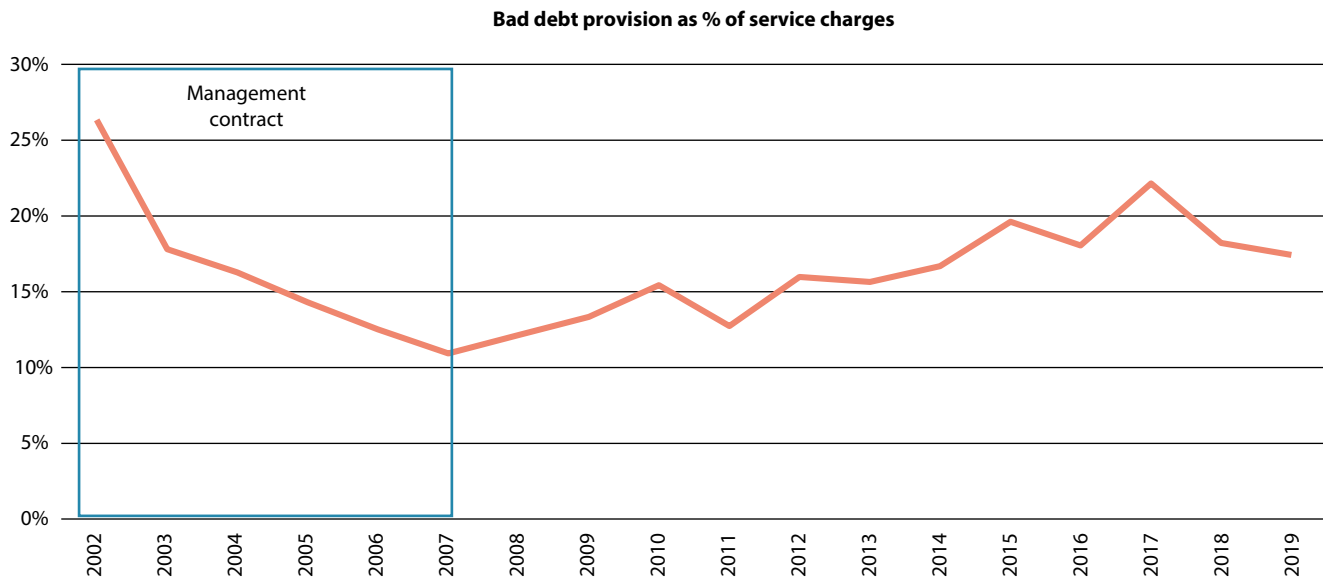
FIGURE 8 CASH COLLECTION FOR JOBURG WATER



Source: City Support Programme, 2021.

Figure 8 shows a turnaround for cash collection under the management contract, but a deteriorating position now.

FIGURE 9 PROVISION FOR BAD DEBT IN JOBURG WATER



Source: City Support Programme, 2021.

Both non-revenue water and cash collection have manifested in increased provision for bad debt.

Summary

The Joburg Water story is an important one. In the late 1990s, what was to become City of Johannesburg was effectively bankrupt due in a large part to non-payment problems, mainly in Soweto. Faced with significant performance and financial challenges Joburg boldly chose a service delivery model that included utilities, agencies, and corporations. As water is a tariff-funded service an independent utility was created for Joburg Water with a fixed-term PPP management contract put in place.

It appointed a consortium, leveraged international expertise in water utilities, to lead the publicly owned utility for five years while training staff, building capacity and handing over to new management in 2006. There is consensus that this turned the utility around in terms of technical performance and Joburg Water was also judged to be the best performing water department or utility in 2006 by the National Water Benchmarking Initiative. However, the management contract bestowed a further legacy in the organizational culture and systems that it built that would continue to provide returns.

More recently, however, those returns are diminishing with Joburg Water now deteriorating in some respects. While its overall financial health is good, its operational performance is in decline. Recently Joburg Water has also lost much of the autonomy that was envisaged for it. It faces many reporting obligations to many parts of the city and no longer accounts only to the Governance Unit. It was originally conceptualized to raise its own revenue and manage customer relationships, a significant role that has been re-centralised, begging the question why this should remain an independent entity. Further, its engagement with public participation, beyond customer surveys, appears limited, particularly given that the seven regional administrations are at too large a scale to meaningfully strengthen community participation and local accountability.

Johannesburg Roads Agency

Services provided

The JRA (Pty) Ltd commenced its business on 1 January 2001 with the City of Johannesburg as the sole shareholder. Its mandate is to plan, design, construct and maintain roads and roads infrastructure.

The JRA's core competencies are the planning, design, construction, operation, control, rehabilitation and maintenance of the roads and stormwater infrastructure in the City of Johannesburg. The main responsibilities include the construction and maintenance of bridges, culverts, traffic signals, traffic signal systems, footways, road signage and road markings.

TABLE 3 CORE FUNCTIONS OF THE JRA

Key service areas	
Traffic regulatory infrastructure	Traffic signals management
	Road signs and markings management
	Road safety (infrastructure)
	Network monitoring
	An Intelligent Transport System
	Traffic engineering (geometric improvements)
	GIS and Accident Management Systems
	Traffic signal operations
	Overload control
Road infrastructure	Road Asset Management Systems (RAMS)
	Planning
	Design
	Maintenance
	Construction
	Strategic assets
	Development control
Stormwater infrastructure	Flood line and master planning
	Storm water maintenance
	Storm water network development planning
	Development control
	Dam safety management
	In-house designs (capacity building)

Source: JRA, n.d.

It is responsible for:

- Traffic regulation infrastructure:
 - 2121 signalized traffic intersections:
 - 1848 are on municipal roads and managed by JRA; and
 - 273 are on provincial roads.
 - 2078 intersections; and
 - 43 planned intersections for commissioning.
- Roads infrastructure:
 - 13,599 km road network:
 - 12,430,47 km of surfaced roads; and
 - 1168,53 km of gravel roads.
 - A new asphalt plant.
- Stormwater infrastructure:
 - 3,943 km of closed storm water and an extensive open drainage system (2010).

Organization

Governing body

JRA is constituted as a not-for-profit company in terms of the Companies Act. It is governed by a Board of Directors in terms of the act, constituted by a Shareholder Agreement, with the City of Johannesburg as the sole shareholder.

The Board (eight non-Executive Directors) takes ultimate accountability and responsibility for the performance and affairs of the company, retaining full and effective control. The JRA's sole shareholder, the City of Johannesburg, reviews the term of office for non-Executive Directors every year at the Annual General Meeting. Accountability to the City of Johannesburg is enabled through a SDA and shareholder compact, concluded in accordance with the provisions of the Municipal Systems Act.

Executive management

The agency is led by a Managing Director appointed on a contract, with full executive powers to lead the agency under the governance of the Board.

At the end of the Financial Year 2017-18, the executive management team included the following portfolios:

- **Acting** Managing Director;
- Head of Department: Infrastructure Development;
- Head of Department: Planning;
- **Acting** Head of Department: Mobility and Freight;
- Head of Department: Performance, Governance, and Information Technology;
- **Acting** Head of Department: Regional Operations;
- **Acting** Chief Financial Officer;

- **Acting** Head of Department: Corporate Services;
- **Acting** Head of Department: Stakeholder Management;
- Operations Manager: Internal Audit; and
- Operations Manager: Company Secretary.

Of the 11 positions, six were vacant, with personnel acting in those positions. The current era has seen significant volatility in the executive management staff of the JRA.

Sean Phillips, a well-regarded public servant (a roads engineer and previously Director-General for the Department of Performance, Monitoring and Evaluation in SA's Presidency) was appointed to the position of MD of the JRA in May 2016. He undertook the position to contribute to local service delivery, inspired to turn around an institution already notorious for deteriorating roads and dysfunctional traffic lights.

He had just agreed on a turnaround plan with the City Manager, the Mayor, and the MMC for Transport when the ruling ANC lost the City in the 2016 local government election. A Democratic Alliance Mayor, Herman Mashaba, took over in August 2016 governing in a formal coalition with the Inkatha Freedom Party (IFP) and in a non-governing alliance with the Economic Freedom Fighters (EFF). To make good on his coalition promises, Mayor Mashaba appointed a new MMC for Transport, Nonhlanhla Makhuba from the IFP. While council appoints board members, according to Phillips, the Board Chairperson Siphso Tshabalala was appointed at her request. He has a criminal record and the necessary background checks were not completed, as he was legally ineligible to fulfil the position.

According to Phillips (2018), pressure was placed on him to keep his Board Chairperson informed of all tenders and key decisions. When he refused, due to the illegality of the request, the Chairperson and Board established a new Project Management Unit to 'assist' on all tenders. This undermined the executive powers of the MD and others charged with similar roles on the Management Team. When raised with the MMC for Transport, and her political advisor, Phillips was told that this was how all political parties fundraise. The Company Secretary raised this and other transgressions with the City's internal audit, and then made a protected disclosure, as provided by law, to the Head of Forensics in Joburg. She was suspended without charges and later resigned. Phillips also resigned after not receiving the support he expected from the Mayor and Municipal Manager.

The DA's ruling alliance in Joburg did not last long with power ceding to an ANC-led coalition mid-term with the ANC retaining the DA's former alliance partners, the IFP and EFF to make its coalition work. The same MMC remains in position. While the Board Chairperson was recently replaced with IFP member Albert Mokoena, the JRA remains plagued by intrusion into its professional management, by allowing the Board more involvement in supply chain management and determining payments to contractors (Jika, 2021).

Legal and institutional arrangements

All UACs in Joburg must comply with the Companies Act, Municipal Systems Act and Municipal Finance Management Act. Achieving this compliance meant developing 'hundreds of policies' according to an interview with the former MD.

Coordination with other urban agencies and services

Operationally JRA is expected to coordinate its work with the South African National Roads Agency Ltd, a public agency, responsible for national roads, and coordinate with provincial roads, especially as the JRA is responsible for traffic-related infrastructure on some provincial roads.

It appears that coordination with other City of Johannesburg services is weaker. The ability to integrate common programmes across Joburg services has emerged as a shortcoming of the UAC model. A digital communication project undertaken by the JRA required integrated management with other services, but this could not happen.

As discussed earlier, Joburg Water has significant interdependencies in service delivery with the JRA, but Joburg Water experiences significant delays in the resealing roads after accessing pipes and infrastructure, with reputational damage for Joburg Water.

Michael Beaumont, Mashaba's chief of staff during his term office, stated that the administration intended to review the UAC model. Council, which initially supported the review, backtracked when issues were raised with the tender process for the review (Mailovich, 2021). Beaumont said, "the city systems have become so fragmented over time that it is impossible to produce a coherent, multidisciplinary response to a problem."

A clear example of this is Joburg's longstanding billing system problem, inherited from separate administrations. The UAC model required all structures to use SAP but as all entities manage their own relationship with SAP it has become almost impossible to reconcile data.

Nature and extent of 'ring-fencing' of department

As indicated by the structure of the executive management team, the JRA is a largely ring-fenced structure, albeit without any revenue raising capacity. While the JRA has always been rates funded, and thus an agency, it did have autonomy to raise revenue through road advertising. However, this was recentralised to the city. Phillips states that despite the agency form, workers saw themselves as part of the City administration and refused to recognise the institutional form of the agency. The employer, according to him, was confused about this as well.

Oversight, autonomy and accountability

Annual and other reports

As Joburg's utilities have to comply with the Systems Act, the Municipal Finance Management Act and the Companies Act, reporting is viewed as considerable. They also produce quarterly reports for the city's Governance Unit, a meeting with their MMC and board meetings. These are aggregated into an Annual Report for the JRA in terms of the Companies Act, and they report to the Council and the public through the annual report requirements for the City.

The interview with the former MD indicated that a large volume of reporting was increasingly required by different parts of the City.

An interview with Ian Davies, responsible for performance reporting to the Governance Unit of Joburg and the MMC, indicated that the Mayor also required specialised reporting. After Phillips left, Davies was asked to change reports to reflect good performance and instructed by the Board Chairperson and acting MD to 'doctor' performance reporting. He refused to do this and resigned.

How the strategic direction of the department is established and reviewed

Strategic direction across Joburg's services is established in the IDP process that relies on public participation and is convened by the City's corporate strategy office. However, agencies such as the JRA undertake their own internal strategic planning and participate in corporate planning but can also align their strategies with the outcome and priorities in the IDP.

How and to whom executive management authority is delegated

Executive management authority in this model is clearly designed to be delegated to the MD. However, this is not always fully understood by all parties, nor is it in the interest of political parties and board members who are part of a corrupt patronage system. Like the board decision to create a PMU, against the advice and knowledge of the MD, corrupt leaders have sought to undermine executive management authority. It is thus argued that the essence of the initial design intentions of iGoli 2002, have since been undermined.

Nature of 'performance compacts', performance metrics, links to budgets and funding, and level of autonomy

This SDA is negotiated in line with the capital and operating budget.

In addition to a shareholder's agreement, the JRA, like other UACs, is contracted annually, based on a SDA that specifies strategic and operational performance indicators including customer standards. The strategic elements form part of a company scorecard and are contracted in principle between the board and executive management.

However, Phillips when interviewed indicated that many powerful members of the new Board were not interested in service delivery performance and improvement plans, but only in tenders and who they were awarded to. He qualified this by saying that there are many credible people on these Boards, with good intentions and appropriate expertise, but they are no longer the norm. Where agencies like the JRA cannot raise revenue, or borrow, he questions the strategic value of a Board, stating that there are other mechanisms to mobilise external experts to advise, such as an advisory panel.

Accounting standards and practices

Like all local government accounting the JRA is expected to meet the South African standard for GRAP.

Auditing

Auditing is undertaken in the same way as Joburg Water.

Finances

Budgeting

Budgeting is done in the same way as Joburg Water.

Sources and uses of operating revenues

The operating budget of the JRA was R1,484 billion for 2020/21, received from the council. It is understood that this is funded by property rates and its portion of the equitable share intended for services to the poor. This comprises its full operating budget. It used to be able to raise revenue from roadside advertising, but this has been centralised.

Sources and uses of capital for infrastructure investment

The capital budget of the JRA for 2020/21 is R1,131 billion. The JRA receives a capital budget from the City of Joburg for specified prioritized projects including its SDA. This is likely to be sourced from Urban Settlements Development Grant, own funds and service contributions.

Fiscal risks and economic and budgetary impacts

Due to fiscal consolidation and the economic impact of COVID-19 grants are likely to continue reducing. Joburg's billing system, customer satisfaction and economic context are likely to apply significant negative fiscal pressure on the JRA's budgets. Collection rates were 89,4% in January, and the city is owed more than R33 billion by debtors. It has R6 billion in the bank with monthly costs exceeding R4 billion (Mailovich, 2021).

In recent media reports on Joburg's service delivery failure, the recently installed ANC Executive Mayor Geoff Makhubo says that his biggest 'headache' is JRA and potholes (Mailovich, 2021). He has promised a very irate public, in an election year, that he intends to turn the situation around, even if he must move his office into the JRA, a clear statement of his views on autonomy.

Transparency, citizen participation and other ('upward' and 'downward') accountability mechanisms

The public is mostly engaged through the City of Johannesburg's IDP planning process which includes community meetings, ward committees, stakeholder forums at regional level and sector meetings at city level. There is a new group function in the City of Johannesburg that focuses on urban management and citizen relationships, and its role and effectiveness must be better understood.

Within the JRA, a customer unit was set up with its own stakeholder and public participation capacity, engaging key customers and ratepayer organizations. This was in addition to the regional administrations that primarily took responsibility for service monitoring and customer complaints, referring them to JRA. The JRA also used an app called "Find and Fix" to mobilise the public to report road infrastructure problems like potholes. While the app was regarded as working well, unfortunately the work of the back-office road repair team created a significant disjuncture between reporting, detection, updates to citizens and actual repairs. Phillips argues this resulted from the further regionalization of JRA staff who were entirely structured in regions under regional managers. Road repair teams in the regions did not report directly to the person responsible for road repairs at head office, but their regional 'chieftains' instead.

JRA has more recently started the 'adopt a road' and 'adopt a traffic-light' programmes encouraging citizens to take ownership of particular infrastructure in their neighborhoods and inform the city of infrastructure problems.

However, citizens have been highly frustrated by the lack of JRA responsiveness choosing to take service delivery and infrastructure financing into their own hands. Ratepayer organizations like the Panorama Residents Association of Weltevreden Park have fundraised, procured asphalt and fixed potholes in their neighborhood.

Service delivery outcomes

Condition of roads

JRA undertook a visual condition assessment of its roads in 2017. In comparison to the 2013 results, the study indicated that very good and good surfaced roads have decreased from 52% to 45%. Poor and very poor roads have increased from 27% to 32%. While 72% of gravel roads are in a poor or very poor condition. The study identifies and categorizes roads for maintenance, gravel road upgrades, reconstruction and resurfacing across the city's 13 599 km road network. The current state of Johannesburg's roads is that 32% of surfaced roads, which make up 3 968 km, require reconstruction; 45% of surfaced roads, which make up 5 581 km are in very good and good condition and may require *ad hoc* maintenance; and 23% of surfaced roads, which make up 2 852 km, require resurfacing. Of the 1,168.53 km of gravel roads, 72% require reshaping and re-gravelling.

Customer standards

TABLE 4 PERFORMANCE OF JRA ON CUSTOMER STANDARDS

Core service	Annual target	Actual performance
Repair of potholes	80% of reported potholes repaired within seven working days from time of recording a genuine pothole	36.28% (3 550/9 784)
Reinstatement of road excavations	80% of reinstatement of road excavations is carried out within seven working days of completion of the excavation by the way leave holder	61% Number of genuine service requests received: 1 801 Number of reinstatements completed within one week: 1150
Repair of traffic signal faults	90% of reported faulty traffic signals repaired within 24 working hours from the time of genuine fault recorded	92.27%
Reduction of traffic signal downtime (new)	Annual 10% reduction of traffic signal downtime	17.2% reduction

Source: JRA, 2019

Table 4 shows the significant underperformance on both the repair of potholes and reinstatement of road excavations. Repair of traffic signals and downtime seems to be on a positive trajectory.

Investment indicators

The annual report for 2017/18 does not provide an indicator of performance on investment other than indicating 97% expenditure on its capital programme. Note that the original key performance indicators (Dlamini, 2001), contracted between the City of Johannesburg and JRA included indicators that are no longer reported on such as:

- Return on investment;
- Life cycle cost; and
- Unit cost reduction.

Customer satisfaction

Corporate Strategy in Joburg has conducted an annual customer satisfaction survey, since 2003.

TABLE 5 CUSTOMER SATISFACTION FOR JRA SERVICES FROM CITY OF JOHANNESBURG SURVEY 2017

Activity	Customer satisfaction level (%)
Storm water drainage	63.4
Neighborhood roads	56.5
Traffic lights	58.2
Road maintenance	52.8
Pedestrian walkways	51.6

Source: JRA, 2019.

Given public sentiment, it is expected that road maintenance features relatively low.

Summary

While there is little evidence to show that JRA made the best of its institutional form and was ever a high performer, it is certainly now in decline and according to the current Mayor, Geoff Makhubo and media articles, may be seen as the worst performing of the Joburg's UACs.

It may have been turned around under highly skilled and professional leadership in executive management. However, a lack of independent governance autonomy and sufficient insulation of professional leadership from the political-economy of a volatile city, has enabled the JRA's further decline to the extent that residents organizations are compelled to collect funds and deliver their own services in certain neighborhoods.

It is hard to see the benefits of the external agency approach when the JRA appears to be a municipal department with a Board, one without significant powers and an expressed vested interest in procurement outcomes. The Board is of little benefit when the service is not allowed to manage revenue and is mostly rates funded. However, in a context where metropolitan municipalities are increasingly likely to require coalition governments, the JRA provides a stark example of how UAC Boards might be an attractive asset in distributing patronage opportunities to hold unprincipled coalitions together.

Mbombela

The City of Mbombela Local Municipality is a newly amalgamated municipality formed after amalgamation of Mbombela Local Municipality and Umjindi Local Municipality, on 3 August 2016. As a category municipality, it is located in the Ehlanzeni District Municipality, with which certain functions are shared, and is one of four local municipalities in the district. Mbombela was formerly known as Nelspruit and is the provincial capital of Mpumalanga province.

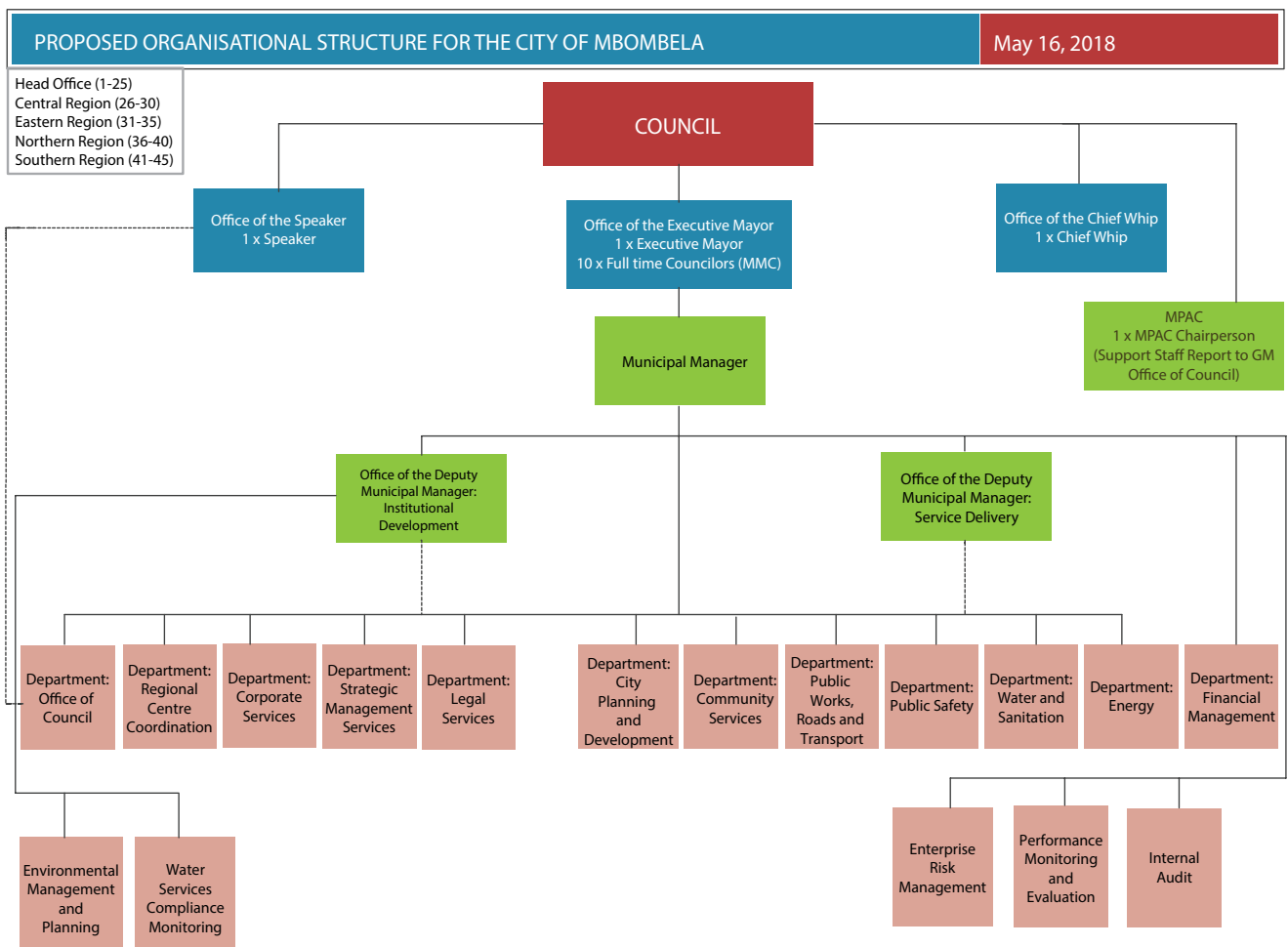
The population of the City of Mbombela was estimated at 6,22,000 in 2016, and is predominantly rural, with approximately 79% of the population residing in rural settlements in 2016 (based on the Statistics SA definition of rural). The population grew at a rate of 2.1% per annum between 2001 and 2011, and at a rate of 1.1% per annum between 2011 and 2016 (Census 2011 and Community Survey 2016). This trend of continued growth, but at a declining rate, is expected to continue for the next few decades (City of Mbombela, 2020).

The City of Mbombela is estimated to serve a population of 6,95,000 people in 2,06,000 households. Its economy grew at an average rate of 3.6% in real terms between 1996 and 2018, significantly comprising the personal and community services economic sector, including government contributing 23%. The wholesale and trade economic sectors are stimulated by the strategic location of the municipality between Gauteng and Maputo, the capital of neighboring Mozambique, contributing 22% to the economy. The municipality also has a strong financial and business services industry, which contributes 18% to the economy. There is significant agriculture in the area due to the moderate climate, which has led to an increase in manufacturing providing services to this and other industries, contributing to 12% of the economy. Due to its location next to the Kruger National Park, the municipality also benefits from tourism.

The municipal council now comprises of 90 councilors, 45 ward representatives and 45 proportional representatives. The ANC is the majority party and has been that of the City of Johannesburg amalgamated predecessors since the first local democratic elections.

Mbombela’s Mayor is elected by council and it has an Executive Mayoral system, where the Executive Mayoral appoints a Mayoral Committee to portfolios. Mbombela has elected to only have Section 79 oversight committees and not Section 80 committees, in terms of the Municipal Structures Act (1998). Section 79 committees are appointed by Council to assist it to fulfil its oversight role. Section 80 committees, while also appointed by Council, assist the Executive Mayor as part of the executive.

FIGURE 10 MACRO ORGANIZATIONAL STRUCTURE FOR CITY OF MBOMBELA



Mbombela has a Municipal Manager with two Deputy Municipal Managers responsible for service delivery and institutional development respectively. One of the Deputy Municipal Manager is the former Municipal Manager of Umjindi that was amalgamated into Mbombela.

This study will look at the governance arrangements for water services, which is delivered in part by PPP concession and solid waste services that is delivered by a municipal department but uses contractors for some areas of service delivery.

Mbombela Water

The City of Mbombela is the water services authority (WSA) for the municipal area, with the district municipality not playing a direct role. There is a split water service provider (WSP) arrangement, with the concessionaire, Silulumanzi, responsible for the provision of water services inside a geographic area known as the 'concession area' accounting for about 54% of the population. The municipality is responsible for the water services outside of the concession area. There is no Water Board currently serving the City of Mbombela with the municipality and concessionaire responsible for their own bulk water supply. Until recently Rand Water provided bulk water to the municipality for two years until their contract expired.

As part of the post-apartheid amalgamation processes for town councils, by 1995 the Nelspruit Town Council had expanded from serving 25,000 people to almost 250,000. Many of the new areas had never received water and sanitation services, and the newly incorporated groups were expecting an immediate improvement in services.

In 1999, the council signed a 30-year concession agreement with Silulumanzi, the current concessionaire, expecting that this would inject the necessary capital and management resources into the water and sanitation operations, to meet the municipality's service delivery obligations effectively and efficiently (City of Mbombela, 2020).

In 2000, the new system of local government created Mbombela Local Municipality with expanded boundaries, which again more than doubled the population of the municipality. In 2016, the amalgamation with Umjindi Local Municipality resulted in the further expansion of the municipal area named the City of Mbombela Municipality and serving a total population of 695,000 people in 206,000 households.

This study will focus on the concession and its governance but also refers to internal delivery undertaken in some areas. An independent 20-year review (City of Mbombela, 2020) was conducted for the concession, upon which much of this assessment relies.

Services provided

The concessionaire provides water and sanitation services and is responsible for servicing 27,408 customers, of which 1 759 are businesses and the remainder residential. Only 60% of the customers metered are paying customers. In the concession area there are approximately 57 000 unbilled, unmetered households who have some access to water, either through formal yard connections, water from tanker deliveries or using JoJo tanks. Approximately 80% of the unbilled, unmetered households which are connected to the main concessionaire system have intermittent supply (City of Mbombela, 2020).

The concessionaire maintains and operates:

- 1,200 km of water pipelines;
- 700 km of sewers;

- Three wastewater treatment plans;
- 99 reservoirs;
- 44 water pump stations; and
- 30 sewage pump stations.

Organization

Governing body

Silulumanzi is a private company and is governed by a Board of Directors appointed by its shareholders.

The 30-year concession contract was awarded to Greater Nelspruit Utility Company, a single purpose private company, with Biwater Capital BV (registered in the Netherlands) holding a 64% share. Biwater Operations (Pty) Ltd (South Africa) has a shareholding of 26%, and a local empowerment partner holds 10%. Greater Nelspruit Utility Company was later renamed Silulumanzi and its shareholding has changed over the 20 years, including its local partner representing 10% black-owned shareholding.

Executive management

Silulumanzi is led by a Managing Director (currently acting), and senior managers for:

- Technical Services;
- Governance and Risk;
- Corporate Relations;
- Commercial Services; and
- Human Resources.

Legal and institutional arrangements

Coordination with other urban agencies and services

On an operational level, Silulumanzi coordinates regularly with the municipal water department's projects unit and the O&M unit which provides services outside the concession area. It also co-ordinates with by-law enforcement regarding illegal water connections. There is an attempt at the CoM to clearly delineate the responsibilities of the water service authority and that of the provider. According to municipal officials, Silulumanzi does not engage with other spheres of government and agencies. This is done by the authority.

Nature and extent of 'ring-fencing' of department

As an entirely private company this is a fully ringfenced operation. It runs all aspects of the water business in the concession area, including billing, customer management and can use equity to raise debt.

Oversight, autonomy, and accountability

Annual and other reports

CoM negotiates and signs a five-yearly Supplementary Service Agreement with the concessionaire, which is reviewed annually.

The municipality has a unit that it calls Water Service Compliance Monitoring (WSCM), formerly in the water department but now elevated to the office of the Deputy Municipal Manager for Institutional Development, for easier access to leadership. This unit has acted as a CMU and is intended to embody the Water Service Authority. There are expectations that it might fulfil this role vis-a-vis the internal water services department (USAID WASH-FIN, 2020).

Silulumanzi reports monthly to the WSCM unit, meets with it to answer questions and then submits a final monthly report against performance areas defined by the Service Agreement, according to interviews with the unit.

The unit reports on the performance of the concession to the Municipal Manager, Mayor (with the Mayoral Committee) and the Mayor in turn reports to the Council quarterly. As part of Council reporting, the relevant Council committee for water engages officials on the performance.

Together with the District Municipality, the CoM reports on a quarterly basis to the provincial department of Cooperative Governance, aggregated annually.

The municipality prepares an annual performance report with audited financial statements that is also reported to the provincial government.

The concession has been significantly affected by contracts management capacity, historically. While initially the CMU was well staffed and had access to external accounting and engineering expertise to assist it, this is no longer the case. The 20-year review of the concession found that over the period 2009 to 2018, the contract monitoring ability of the City declined as key staff left and the appointment of external advisors to monitor financial and technical performance was terminated. Since then, the CMU has remained in place, but lacks the necessary expertise and impetus. There remains a concern that the municipality is not currently monitoring and managing the contract in the manner that it should and thus not ensuring that it receives the optimum possible benefits from this contract (City of Mbombela, 2020).

In a complex contractual arrangement, like a concession, appropriate contract management capacity is critical to its success. While monthly engagements are expected, there are indications from the concessionaire that at times little oversight and engagement has been received. They indicated that in 2018 they only had two meetings, and that currently engagement with council's committees no longer happens.

The concessionaire pays a concession fee annually, set at the cost of contracts monitoring and management. This was recently more than R3 million annually. While the concessionaire argues that the concession management plan is not implemented, they continue to pay this fee in good faith.

The contract also provides for sanctions on the concessionaire for non-performance. Penalties range from R10 000 for minor offences, such as an unforeseen cut in the water supply exceeding the maximum specified period allowed for it to be attended to, or repeated incorrect invoicing where there had already been two customer complaints; and up to R500 000 for not meeting any of the requirements set for any 5-year period.

Thus far, no sanctions have been applied (City of Mbombela, 2020).

How the strategic direction of the department is established and reviewed

The CoM develops strategy through the 5-year IDP process, which informs its plans for the water function. In theory this informs the supplementary 5-year agreements with Silulumanzi. The planning unit in the water department undertakes the Water Services Development Plan that feeds into the IDP process.

How and to whom is executive management authority delegated?

Executive management authority is full delegated to Silulumanzi.

'Performance compacts', performance metrics, links to budgets and funding, and level of autonomy

The performance compact is defined by the 5-year Supplementary Agreement. The original agreement was made in 1999 with the following supplementary agreements to follow:

The original contract was implemented in November 1999 and included the principle of the contract being reviewed every five years.

Subsequently, further Supplementary Agreements have been concluded as follows:

- SA1 – August 2003 (earlier than five years to accommodate national policy on free basic services);
- SA2 – May 2005;
- SA3 – November 2009;
- SA4 – November 2014; and
- SA5 – should have been signed in 2019 but has been delayed and negotiated currently.

These agreements determine the performance expectations required and align with budgetary resources.

Accounting standards and practices

All municipalities are required to use the South African standard of GRAP as accounting standards.

Auditing

Financial and performance auditing is conducted by internal audit first. As a private company they would report to the audit committee set up for the entity. The annual report and annual financial statements are additionally audited by an auditor before tabling their audited financial statements as part of an annual report.

Finances

Budgeting

Budgeting part of the five-yearly negotiation of the supplementary agreement. Municipal budgeting for the water services function is driven by the budget office in terms of their medium-term revenue and expenditure framework (MTREF) aligned to the IDP.

Sources and uses of operating revenues

Operating revenues are significantly derived from tariffs and the equitable share intended for poor households.

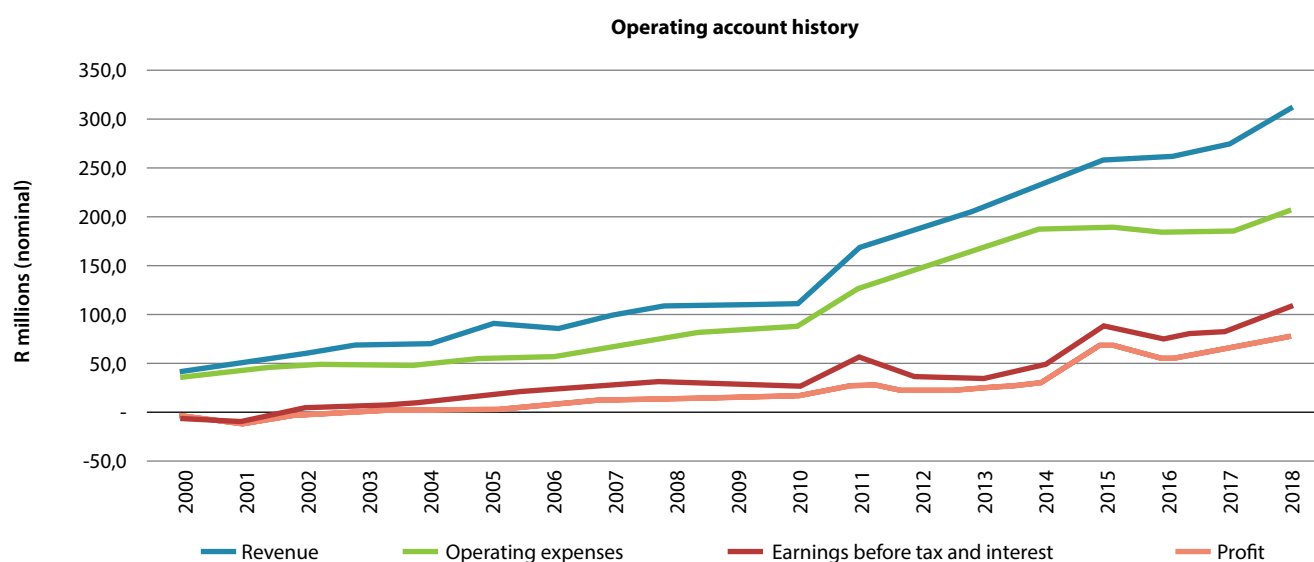
As the WSA, the municipality has legal powers to set water and sanitation tariffs, and this cannot be delegated.

A contractual mechanism was developed to address this:

- the concessionaire annually determines the “charges” required to operate sustainably;
- the municipality can then determine the “tariffs” to be charged by the concessionaire, to the consumers; and
- if the municipality sets tariffs at a lower level than the charges, the difference in revenue must be paid by the municipality to the concessionaire (City of Mbombela, 2020).

The concession contract provides for the concessionaire to receive part of the local government equitable share (LGES) funding received by the municipality from the national fiscus. While the water and sanitation proportion based on the LGES formula is R310 million for the concession areas, the latest agreement only provides for R30 million to be provided to the concessionaire, and this was not fully disbursed (City of Mbombela, 2020).

FIGURE 11 OPERATING ACCOUNT HISTORY OF SILULUMANZI



Source: City of Mbombela, 2020.

The operating account history shows that the concession generates a healthy profit for the concessionaire.

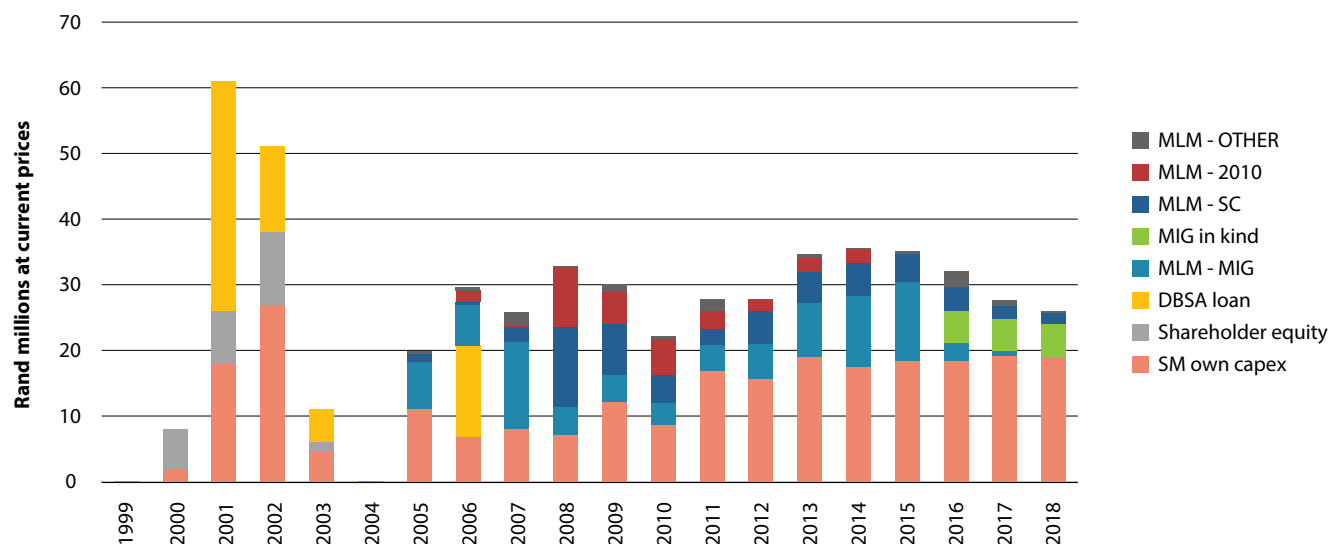
Sources and uses of capital for infrastructure investment

Capital expenditure over the 20-year concession period is shown in Figure 11.

The 20-year review notes that for a financially sound service provider with infrastructure investment responsibilities, finance should be a blend of:

- Grants: typically, MIG; the water services infrastructure grant (WSIG); and the regional bulk infrastructure grant (RBIG);
- Equity: own funds provided by shareholders or accumulated reserves;
- Debt: borrowing from development finance institutions or private finance institutions; and
- Development charges (service contributions): payments by property developers for bulk and connector infrastructure. This may be provided as a payment to the municipality or provided by a developer ‘in kind’ through the construction of an element of bulk or connector infrastructure.

FIGURE 12 20-YEAR CAPITAL EXPENDITURE



Source: City of Mbombela, 2020.

The review notes that none of these sources of finance are being provided sufficiently in the concession area. Other than the original DBSA loan taken at the start of the concession, the concessionaire has not borrowed.

Concessionaire funding

The concessionaire has provided funding in three forms (City of Mbombela, 2020):

- Shareholder equity: approximately R26.5 million over the period of 2000-2003;
- DBSA loan of R70 million utilized over the period 2001-2007, evidently fully drawn down and now fully repaid; and
- Silulumanzi's own capex (from retained earnings): approximately R250m utilized over the full 20-year period. Over the SA4 period, the commitment – which was honoured – was to provide up to R20 million a year.

Given their analysis of the funding requirements, the review found that

- The concessionaire has substantially under-invested in infrastructure when compared to requirements;
- Previous supplementary agreements have been lenient and did not require significant capital investment;
- The primary purpose of the concession contract was to provide capital to expand and renew the water services infrastructure in the concession area (otherwise a lease contract would have been used, presumably); and
- The review also undertook a financial viability assessment and found the concessionaire was well able to take on debt over the past ten years.

Grants

The situation with capital grants is quantified below (City of Mbombela, 2020):

Municipal Infrastructure Grant (MIG)

While the water and sanitation proportion (based on the MIG formula) was R170m in 2018, only an estimated R7 million on average, over the period of 2005-2015, was allocated to the concession area.

Water- and sanitation-related grants

The WSIG was understood to be R 40m in Mbombela in 2018 and the RBIG allocation to City of Mbombela in 2018 was also R 40m. It appears that little or none was allocated to the concession area.

While noting that grants are intended to provide poor households with access to services, regardless of the service provider, the 20-year review notes there is a substantial under-commitment of grant funding to the concession area by the City of Mbombela.

Fiscal risks and economic and budgetary impacts

There are significant fiscal risks from not investing sufficiently in infrastructure in the concession area. A further risk relates to the high-water usage in the concession area with the need for greater water conservation and demand management.

Transparency, citizen participation and other ('upward' and 'downward') accountability mechanisms

Citizen participation happens through the IDP process and ward committees. Ward committees and councilor-convened community meetings provide inputs on community needs that are considered in the IDP prioritization process. Annual reporting is published on the municipality's website.

In the water sector, municipal water ambassadors engage with communities. Mbombela has a new customer care department inherited from the merger with Umjindi. This department is new and still extending its work across the Mbombela boundaries.

It is understood that there are also ward facilitators employed in each of the 45 wards and structurally located in the office of the Speaker. It is unclear what their role and effectiveness is in resolving service delivery problems.

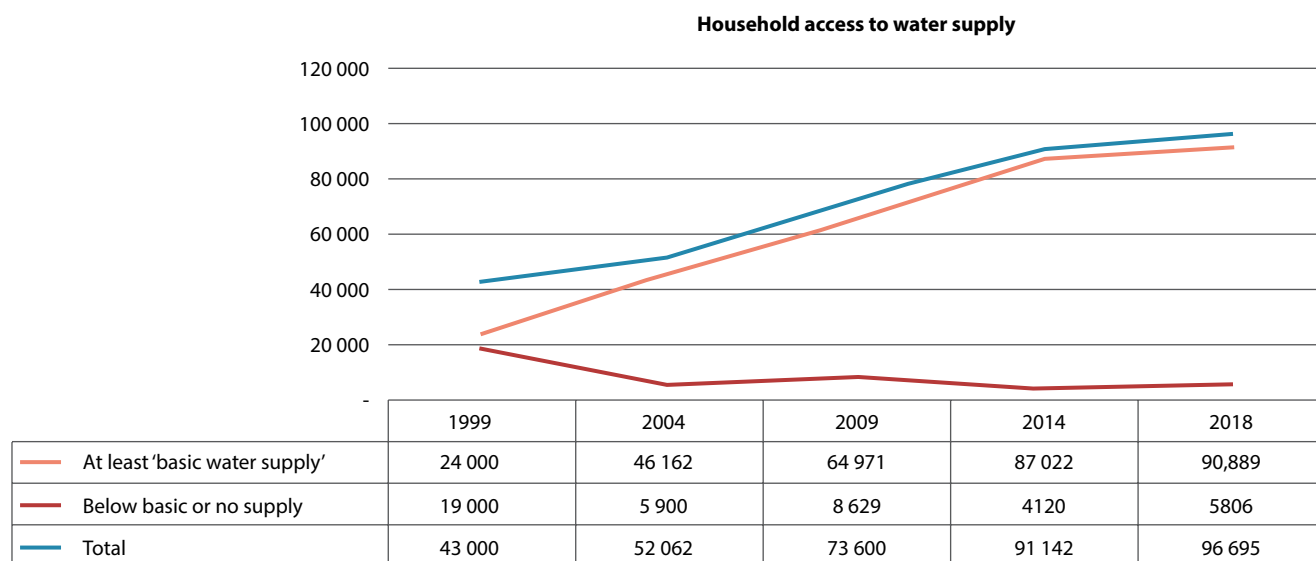
The IDP office also has four regions with two IDP co-ordinators in each amounting to eight. They each live in their respective work regions and are integrated into the community. As part of the IDP office, their role is significantly about community-based planning, however, many play a service-monitoring and problem-resolution role engaging with the respective departments to flag and resolve service delivery problems.

Outcomes

Firstly, the quality of reporting from the concession to the municipality does not include good performance indicators. The analysis presented here is significantly drawn from the 20-year review of the concession.

Access to water supply infrastructure

FIGURE 13 ACCESS TO BASIC WATER SUPPLY – 20-YEAR TREND (CITY OF MBOMBELA, 2020)



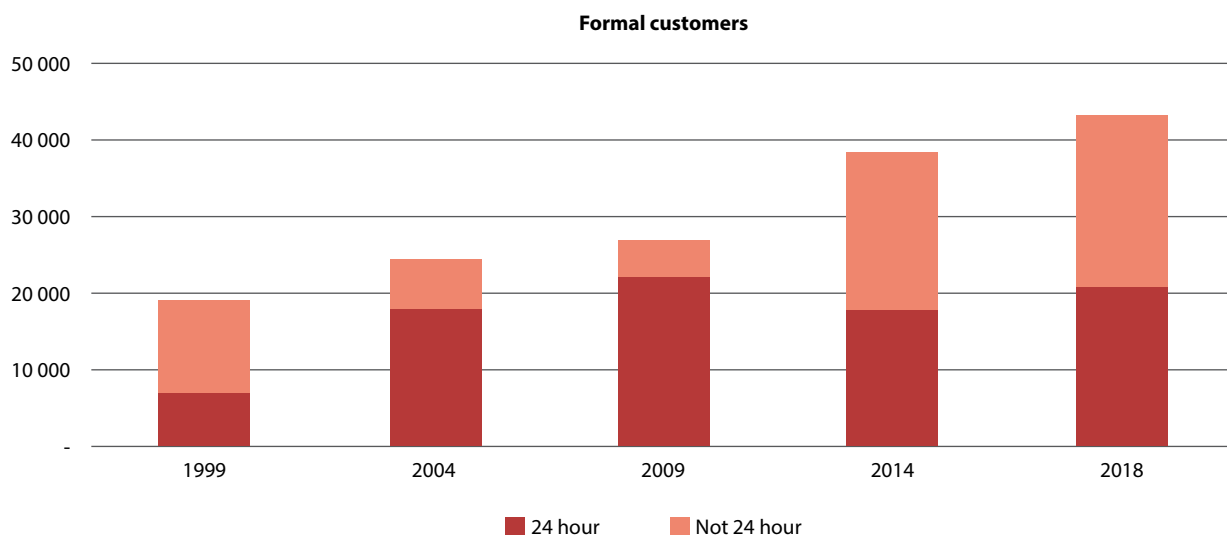
Source: City of Mbombela, 2020.

Figure 13 shows a 4,4% annual growth in total households in the concession area, with a steady reduction in 'below basic' supply.

Continuity of supply

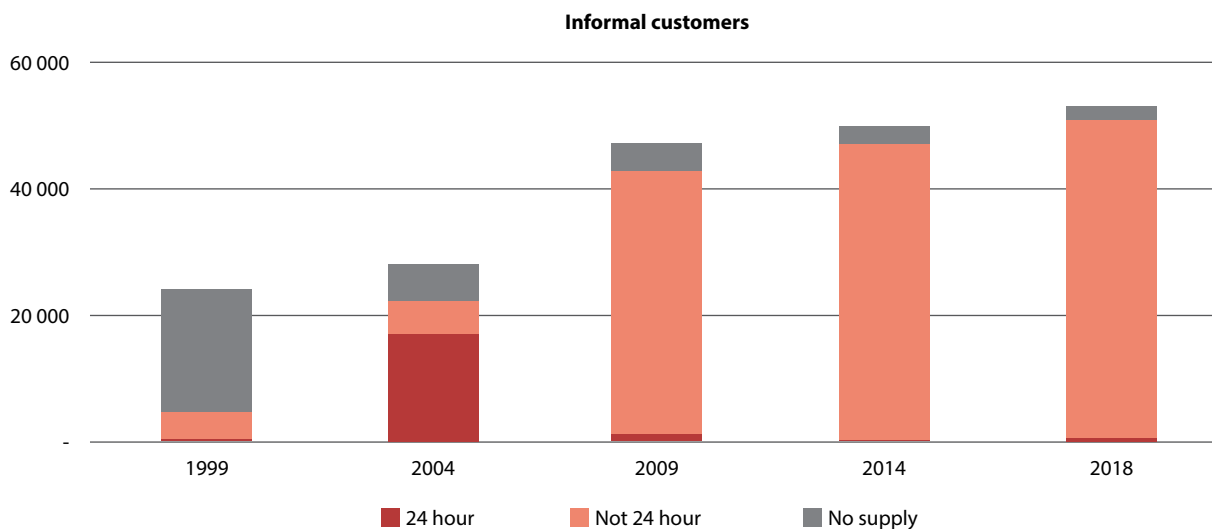
The contract requires an increase in the extent to which customers have continuity of supply, with the aim of access to water 24 hours a day, seven days a week. The results, based on Silulumanzi data, are shown in Figure 13 for supply hours per day, separated for formal and informal customers.

FIGURE 14 CONTINUITY OF WATER SUPPLY – FORMAL AREAS



Source: City of Mbombela, 2020.

FIGURE 15 CONTINUITY OF WATER SUPPLY – INFORMAL AREAS



Notable since 2009 is the steep decline in the proportion of consumers receiving a 24-hour supply. The review notes a 'downward spiral' in service delivery arrangements, particularly in the peri-urban areas of Nsikazi South and Matsulu, attributed to both the concessionaire and the municipality driven by:

- Uncontrolled, rapid settlement allowed by the traditional authorities consisting of a large influx of low-income, economic migrants;
- The water boards previously responsible for the South Nsikazi scheme have performed poorly in operating and maintaining the scheme, with virtually no capital works expansion by the municipality on this scheme;
- Insufficient political backing from councilors for WCDM undertakings, which include obligations for the non-poor to accept metering of water and pay their bills; and
- CoM has also failed to properly formulate and apply water and sanitation by-laws, resulting in uncontrolled informal connections to the system, building over pipelines, water wastage, and unauthorized use.

There is a clear case of under-investment in infrastructure outside the urban centre.

According to the review there are several reasons for this:

- Insufficient grant funding, mainly from the Municipal Infrastructure Grant (MIG), has been allocated for infrastructure serving low-income households; and
- Despite the concessionaire providing agreed, expected own-source capital, it did not provide sufficient capital to deliver infrastructure sustainably.

The lack of investment has impacted both bulk and distribution infrastructure.

Sanitation service levels

TABLE 6 20-YEAR TREND: ACCESS TO SANITATION SERVICES

	2004	2009	2014	2018
Connected to treatment works	21 935	24 329	28 931	34 920
Septic tanks	500	500	unknown	unknown
VIP		2 325	unknown	unknown
Other	30 127	46 446	16 406	61 775
Total	52 562	73 600	45 337	96 695

Source: Silulumanzi.

Note: Data on septic tanks and VIPs for 2014 and 2018 missing.

There has been substantial progress in increasing access to sewerage sanitation over the past 14 years. However, according to the review, little attention was paid to sanitation for households not provided with sewerage service levels. While there were programmes to provide ventilated improved pit latrines (VIPs) in the past, this has been insufficient.

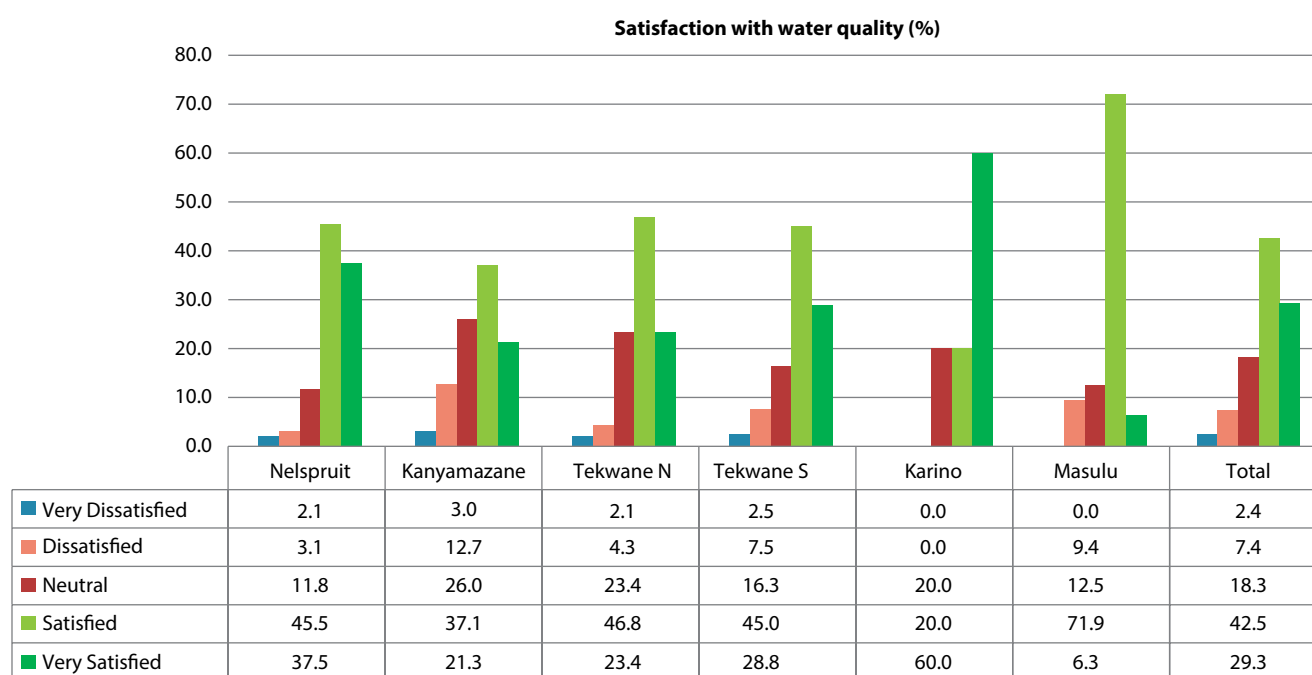
Non-revenue water and revenue collection

For the period January 2018 to January 2019, the review found that non-revenue water was 42.4%, with real (technical) losses constituting 26.7%, significantly due to illegal connections.

Customer satisfaction

The Service Agreement requires that Silulumanzi conduct customer satisfaction surveys.

FIGURE 16 DOMESTIC ACCOUNT HOLDER SATISFACTION WITH WATER QUALITY

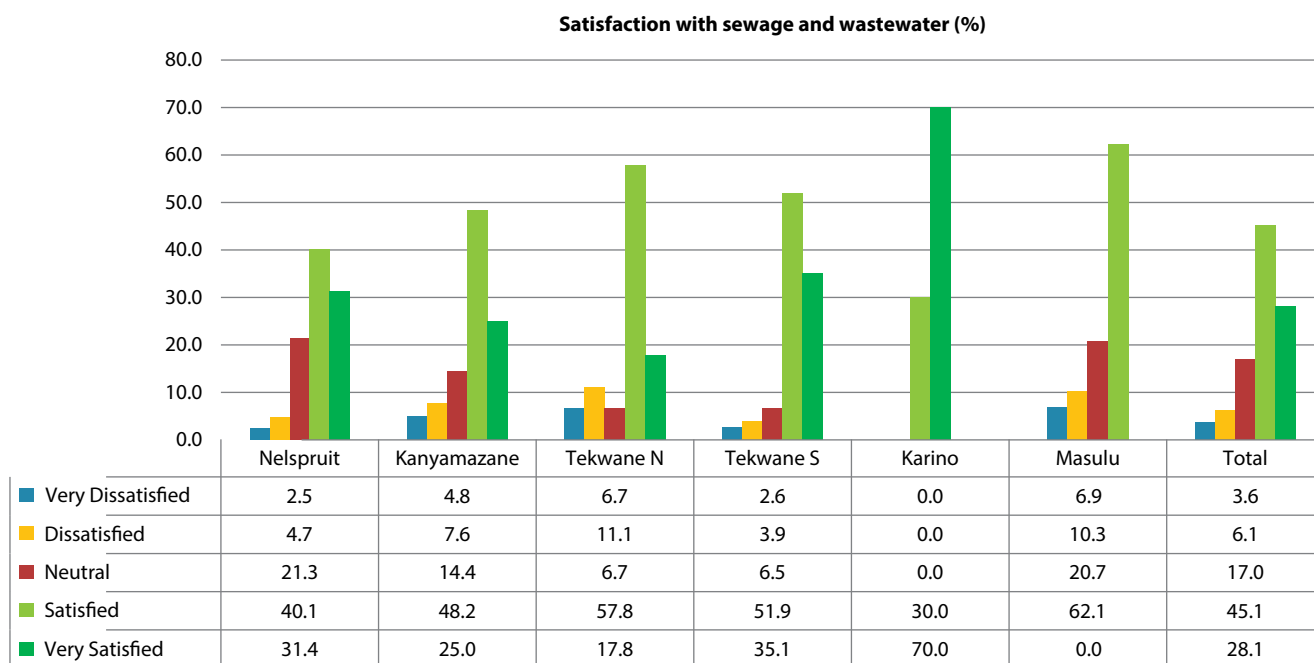


Source: City of Mbombela, 2020.

The review found that the surveys are well executed and provide important information. They include three groups of consumers: (1) account holders, who typically have a water connection and sewered sanitation; (2) businesses; and (3) rural and peri-urban households.

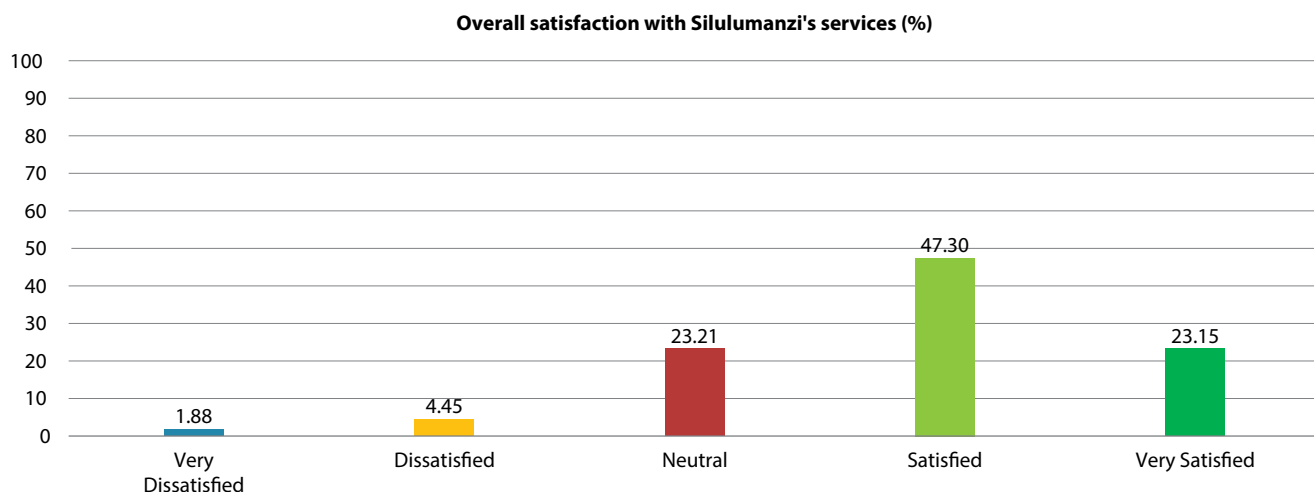
Account holders and businesses are satisfied with the services performed by Silulumanzi. The findings in Figures 15 to 18 are from the last survey conducted in 2017.

FIGURE 17 ACCOUNT HOLDER SATISFACTION WITH SEWAGE AND WASTEWATER



Source: City of Mbombela, 2020.

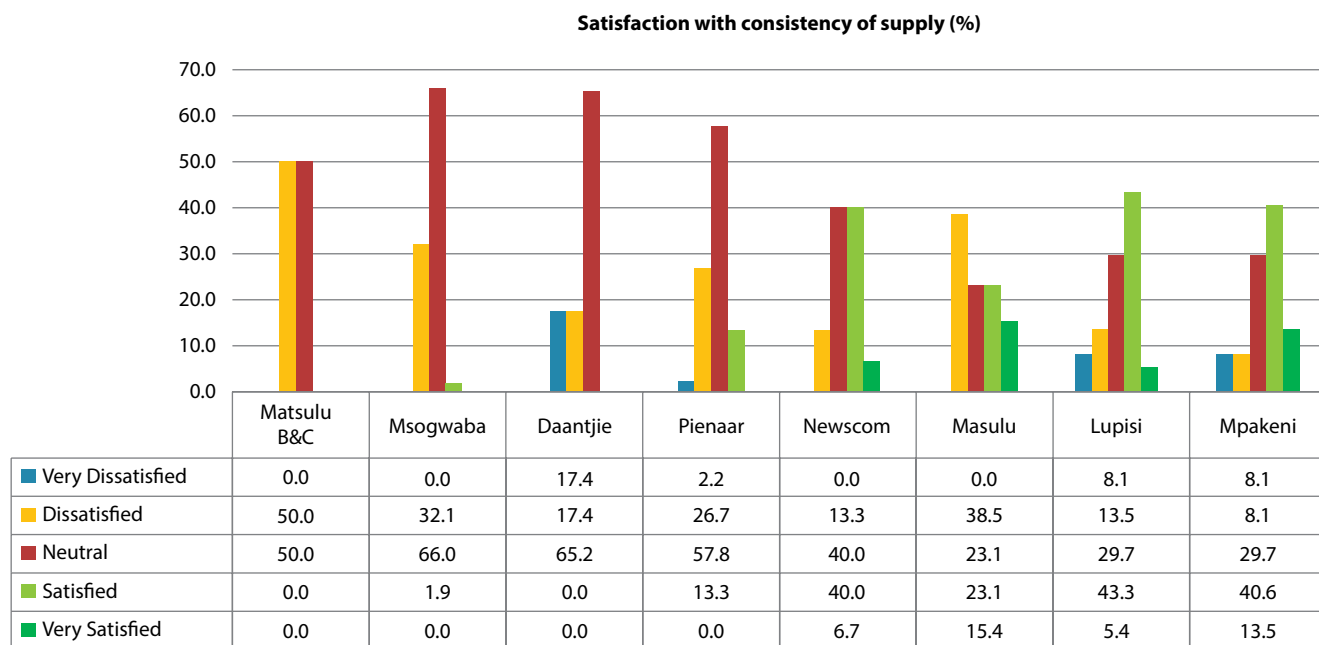
FIGURE 18 BUSINESS SATISFACTION WITH SILULUMANZI'S SERVICES (N = 185)



Source: City of Mbombela, 2020.

The levels of dissatisfaction indicated in the figures are consistent with the infrastructure under- investment in specific areas.

FIGURE 19 RURAL AND PERI-URBAN HOUSEHOLD SATISFACTION WITH CONSISTENT SUPPLY



Source: City of Mbombela, 2020.

Summary

The concession granted by Mbombela is an important service delivery innovation to be learnt from. Overall, it has remained successful, but challenges relate to the extent that it is a partnership. While there were many advances made in the last 20 years, an assessment of this arrangement, drawing on the insights of the recent 20-year review, indicated that the partnership between municipality and service provider was less successful in rural and peri-urban areas where operations take place in difficult circumstances including challenges with bulk water supply, consistent illegal connections, civil unrest and general opposition to the need to pay for water services. The following factors emerge from the 20-year review:

- The concessionaire failed to invest sufficiently in new infrastructure and the renewal of existing infrastructure. Despite the level of investment agreed to by both parties in individual supplementary agreements, actual investment has been inadequate and a reflection on the partnership;
- Silulumanzi has not met targets to improve the continuity of water supply in terms of days for which households have access to water and hours per day;
- Silulumanzi has had too little success with water demand management and revenue collection in rural and peri-urban areas and as the concessionaire is accountable for this despite interdependencies with CoM;
- The municipality has not fulfilled its part in paying agreed amounts and allocating grant funds to the concessionaire as required in the supplementary agreements;
- The municipality needs to support the concessionaire and implement arrangements to enforce by-law compliance, with the necessary political backing; and
- The municipality needs to invest in contract monitoring and management and access the appropriate technical skills necessary. This is a critical enabler to the above.

The review also makes the important point that the functioning of the concession would benefit significantly from better support by national government.

Mbombela Solid Waste

The Mbombela SWD department is an internal departmental service delivery mechanism with the City of Mbombela.

Description

Services provided

Focusing on general municipal waste only, it provides the following services:

- Door-to-door waste collection from residences and businesses;
- Transfer to waste disposal;
- Waste disposal facilities; and
- Litter removal and street sweeping on main roads, the central business district and public spaces.

The scale of the services offered is:

- 46,528 residential households served;
- 2,162 commercial premises served;
- 6,938.54 tons of waste collected per month;
- 183 waste skips;
- 49 refuse collection vehicles;
- One transfer station;
- Three landfills totalling 190 hectares;
- 525 municipal staff; and
- Five contractors: one for waste collection, one weighbridge contractor, three separate landfill management contractors.

Collection is a weekly door-to-door bagged collection in formal proclaimed areas. Commercial establishments have their refuse collected three times per week, or more by arrangement, but according to the 2017 Integrated Waste Management Plan, commercial establishments receive this service daily.

The newly merged City of Mbombela's population is just below 50% urban, with negligible informality, which means only urban households receive the weekly collection service. For rural areas, skips are provided on the main road and then collected. The City of Mbombela is investigating bagged or bin collections in rural areas. Of the urban population 20% live in townships and these areas are serviced by a private contractor. Most households in urban areas receive waste removal services through the internal department's operations.

The City of Mbombela has three active landfills whose management is outsourced to different contractors. All contract management is undertaken within the SWD.

The City's by-laws cover the following areas of waste management:

- Planning, policy, and strategy;
- Information systems;
- Waste minimization;
- Municipal obligations for waste management services;
- Commercial waste services;
- Disposal facilities;
- Storage of waste by business, industrial and recycling agents;
- Waste handling;
- Storage, handling, and disposal of hazardous waste;
- Transportation and disposal of all kinds of waste;
- Private waste providers;
- Littering and dumping;
- Administrative enforcement;
- Infringements, enforcement, and notices;
- Complaints;
- Judicial enforcement;
- Offences and penalties; and
- Charges for waste removal and disposal (Ehlanzeni District Municipality, 2017).

Organization

Governing body

As an internal department, solid waste is expected to comply with conventional internal reporting and accountability. The senior manager for solid waste reports to the General Manager for Community Services, who in turn reports to the Deputy Municipal Manager: Service Delivery and the Municipal Manager, who in turn reports to the Executive Mayor. The executive is governed by the Council which has a Committee for Community Services that exercises oversight over the Solid Waste function. There is also a Member of the Mayoral Committee for Community Services who provides executive oversight over the function, but also accounts to the Committee for Community Services.

Executive management

While the Municipal Manager is the executive manager for all municipal functions, this is delegated to the Senior Manager for Solid Waste, via the General Manager for Community Services.

Legal and institutional arrangements

Coordination with other urban agencies and services

Parks and cemeteries fall under Community Services and undertake cleaning of their public spaces including grass cutting, garden services and cleaning cemeteries. Auxiliary services in the municipality

work closely with the solid waste function and lead on public awareness and education on litter, illegal dumping, waste minimization and recycling. The SWD also works closely with Enforcement to prevent by-law infringement.

The Finance Department supports the SWD on contracts, but the department manages contractor performance.

The District Municipality provides support and monitors the solid waste function. As part of its support role it assists all the local municipalities collectively by developing an Integrated Waste Management Plan (IWMP).

The provincial government plays a support, monitoring and regulatory role over the solid waste function and licences landfills. The province has a support forum, the Provincial Waste Managers Forum, who form part of a national forum.

The national department of the environment develops national norms and standards and manages the waste information system.

Hazardous and medical waste management is a well-regulated national competence.

Nature and extent of 'ring-fencing' of department

As an internal department there is no ring-fencing and the department is dependent on other departments for key enabling services such as human resources and finance.

Oversight, autonomy and accountability

Annual and other reports

The SWD reports daily to the MMC for community services, and formally at monthly meetings.

Formal reports are produced quarterly for council and tabled via reporting lines to Municipal Manager, who in turn reports to the Mayor and MAYCO, the Council and its relevant committees that meet quarterly. Quarterly reporting is done in terms of indicators from the Service Delivery and Budget Implementation Plan adopted with the budget annually.

Council can also refer issues to the Municipal Public Accounts Committee (MPAC) for further investigation and engagement.

Quarterly reports are aggregated into the annual report and annual and quarterly reporting are collated within the municipality and with the district municipality for reporting to the provincial Department of Cooperative Governance.

How the strategic direction of the department is established and reviewed

Strategic direction is driven by the department charged with strategic management, in terms of Vision 2030, the City of Mbombela's long-term plan. The strategy unit also leads the IDP planning process every five years and its annual review. The SWD develops an IWMP every five years and shares this responsibility with others in the district and the district municipality plays a support role by managing this process.

How executive management authority is delegated

Executive management authority is held by the Municipal Manager. However, it is clear that the MMC for Community Services plays a hands-on role overseeing the service, and engaging daily, which is more than the Municipal Manager or Deputy Municipal Manager are likely to be able to do.

'Performance compact', performance metrics, links to budgets and funding, and level of autonomy

A review of the IWMP indicates that it does not have performance indicators or performance data. The IWMP laments the fact that there are poor capabilities for, and thus poor availability of, solid waste performance data, including non-compliance with the national requirement for waste information.

The department's key performance contract is the Service Delivery and Budget Implementation Plan, for which the 2019/20 version has only one, arguably weak, indicator for solid waste:

- Number of new additional formalized households with access to weekly waste removal services

This indicator is purely focused on rolling out new solid waste services for new formal households. It does not focus on efficiency, effectiveness, or waste minimization. It does not focus on the licensing of landfills, which have experienced significant performance problems.

Accounting standards and practices

All municipalities are required to use the South African standard of Generally Recognized Accounting Practice (GRAP) as accounting standards.

Auditing

Financial and performance auditing is conducted by internal audit, first quarterly. Internal audit then reports to the audit committee for the municipality. The annual report and annual financial statements are additionally audited by an auditor, on behalf of the Auditor-General of SA before tabling the audited financial statements as part of an annual report.

Finances

Budgeting

The budgeting process is rooted in the IDP and the departmental strategic planning produces five-year term-of-office plans. The budget is aligned to these but subject to council's prioritization model.

Sources and uses of operating revenues

The waste service is entirely tariff-funded together with its portion of the equitable share. These funds are used for staffing, contractors and running costs.

TABLE 7 SOLID WASTE OPERATING EXPENDITURE FOR MBOMBELA

Budget items	R
Total waste budget	125 077 280
Fleet and equipment including maintenance and fuel	12 230 390
Waste personnel salaries	82 610 157
Outsourced services	–
Waste collection	7 588 854
Landfill management	11 141 819

Source: Ehlanzeni District Municipality, 2017.

For the current year 20/21 the solid waste operating budget is R 310 429 514 including salaries. Of the opex, R 131 356 704 (42%) is funded from equitable share and R 171 072 810 (58%) is funded from tariffs. With only formal urban households receiving a solid waste service, the tariff cannot be cost- reflective and is arguably subsidised.

Sources and uses of capital for infrastructure investment

MIG funding is used to fund infrastructure projects relating to landfills and transfer stations. Other solid waste capital needs are funded from the municipality's own funds. These relate to its fleet capacity and other infrastructure, like ablution facilities for staff. There are currently three capital projects planned, one on improvements to a landfill and two for ablution facilities for staff. For the current year 20/21 Capex is R 750 000.

Transparency, citizen participation and other ('upward' and 'downward') accountability mechanisms

Citizen participation happens mostly through the IDP process and ward committees. Ward committees and councilor-convened community meetings provide inputs on community needs that are considered in the IDP prioritization process. Annual reporting is on the municipality's website.

Mbombela has a new customer care department inherited from the merger with Umjindi municipality. This department is new and still extending its work across Mbombela. For solid waste this new customer care department is relied on to pick up citizen complaints. This customer care facility is a manual facility, with operators receiving calls or emails and in turn calling or emailing officials to resolve these. Tracking the resolution of complaints is not always possible with the 200 calls and emails received daily. They are currently procuring an electronic customer care system with the assistance of GIZ.

Customers also call the administration directly, and in communities, with less communication infrastructure, people find it easier to access ward councilors.

It is understood that there are also ward facilitators employed in each of the 45 wards structurally located in the office of the Speaker. It is unclear what their role and effectiveness is in resolving service delivery problems including those related to solid waste services.

The SWD sees the public participation unit in the Speaker's office as responsible for receiving petitions and referrals from the presidential hotline. Their central role is to co-ordinate ward-based community

involvement, collate community input and share this with strategic management. If the SWD is approached by an NGO or CBO they are referred to the public participation unit or MMC.

The IDP office has four regions with two IDP co-ordinators in each. They live in their respective work regions and are integrated in the community. As part of the IDP office, their role is significantly about community-based planning however many play a service monitoring and problem resolution role engaging with the respective departments to flag and resolve service delivery problems.

Outcomes

The IWMP laments the poor capabilities for, and availability of performance data for solid waste in Mbombela and much of the rest of the district. It also indicates that the nationally required waste management information is not kept and updated, at least in 2017.

As discussed, the SDBIP has one relatively limited indicator relating to newly formalized households receiving a waste collection service.

The Municipal Annual Report for 2018/19 refers to two solid waste indicators. The first is the intention to undertake three waste management audits in the year. However, in 2018/19 the municipality only undertook one of these, attributing performance responsibility for this underperformance in the Annual Report to the service provider.

The second indicator related to the number of newly formalized houses that the solid waste service was extended to. The target for the year was set at 150, but the municipality significantly 'overperformed' with 4,555 newly formalized houses receiving a waste collection service. The indicator gives no indication of the number of newly formalized houses that did not get a waste collection service in that year, and reflects on the performance of providing services to newly formalized housing rather than the operation of the waste collection service as a whole.

While the two performance indicators are limited in their utility, it is highly significant that the municipality has chosen to contract with its SWD against a budget of R125m to deliver these.

The IWMP does point to the following performance issues:

- Only urban households receive a solid waste service. According to the most recent data in census 2011, only 29,4% of the population of the former Mbombela municipality area and 64.5% of Umjindi receive waste collection services. Therefore, the merged City of Mbombela provides waste removal service to 47% of its residents;
- In 2017, one of the three landfills managed by Mbombela, in Hazyview, was not licensed and was found burning waste, which is prohibited;
- The IWMP states that "current landfill operations across the municipalities are without doubt marked with no or low level of regulatory compliance to any legislative provisions, licence conditions and minimum requirements"; and
- In Mbombela it found that the lines of accountability were blurred between municipal officials and contractors and that municipal officials had 'abdicated' their responsibility for the management of landfills.

Summary

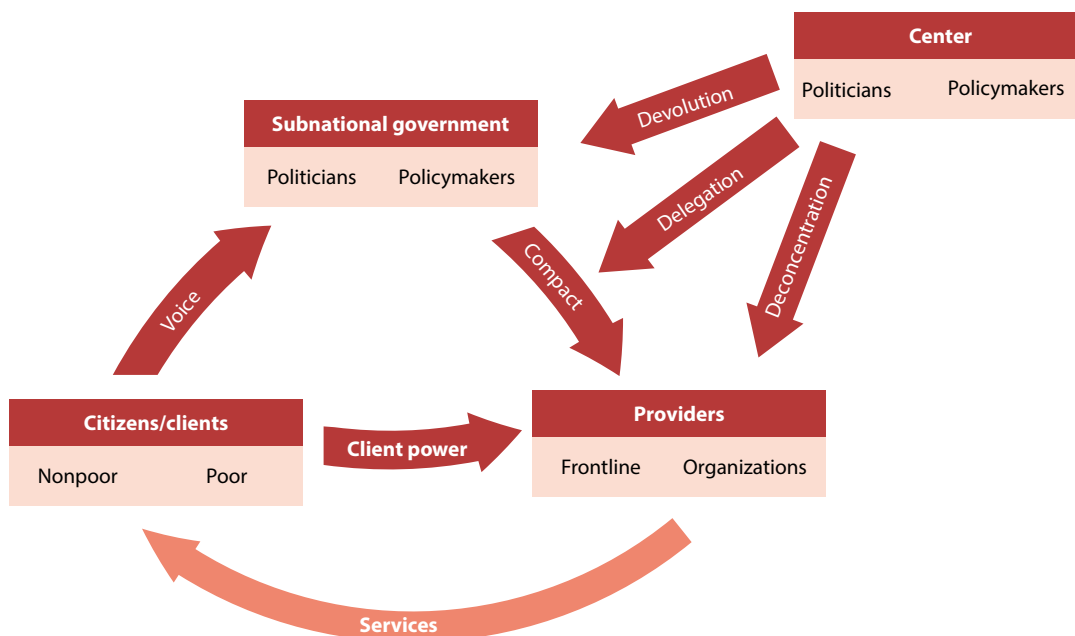
A defining feature in assessing the SWD in Mbombela is the lack of strategic documentation and the systematic collection and collation of performance information. The City of Mbombela's Vision 2030, IDP and SDBIP barely refer to the service, which is reflected in only one indicator. Access to more information was pursued, but the lack of performance data may accurately reflect the state of the department and its service delivery.

ANALYSIS



The World Development Report (2004) (World Bank Group, 2004) offered an important governance framework for service delivery, particularly relevant in the context of decentralization and devolution. It highlighted the triangular relationship between citizen, politicians, and service providers and three important interfaces where relationships can break down. In the context of devolution, the role of the devolving centre highlights the importance of the intergovernmental interface.

FIGURE 20 WORLD DEVELOPMENT REPORT 2004 GOVERNANCE FRAMEWORK



It defined the route of accountability via elected representatives as the 'long route of accountability' and that between service providers and citizens/customers as the 'short route'.

While the case studies examined have focused significantly on variations in provision arrangements, it is important that the governance of these arrangements is analyzed holistically within a balanced framework for service delivery governance such as the one offered here.

Political representation of citizens and communities

The first interface to look at is that between citizens or communities and the political system of the municipality.

Electoral system

Ignoring the case of district municipalities, which has not been the focus of this study, the electoral system at a local level is well-regarded and consistent across all types of municipalities in South Africa. This mixed system of 50% constituency representatives (ward councilors) and 50% proportional representatives provides that at ward level both party and independent candidates can compete. The model balances local constituency representation with representation of smaller political parties and can ensure greater diversity of political representatives including women, youth, and people with disabilities. There is, however, an argument that wards, particularly in metropolitan municipalities, are at too large a scale for meaningful constituency representation.

It has also been argued that a directly elected mayor may bring stronger accountability to voters, rather than to their political party. Recently, high profile mayors of metropolitan municipalities have resigned due to intra-party conflict and conflicting accountabilities.

The ruling ANC announced its city mayoral candidates before local elections for the first time in 2016, breaking a 21-year tradition of avoiding announcing its mayors, even under executive mayoral systems, before the election, to preserve party unity. However, this has also entrenched a desired set of accountabilities that voters elect parties to represent them, and even executive mayors serve at the pleasure of the party.

Executive mayoral system

The type of mayoral system is determined by the provincial minister for local government with respect to each municipality in the province. The key difference in the systems is whether executive political powers are vested in the Mayor or a committee. The latter model in theory caters for greater political diversity in the executive and has enabled the constitution of executive committees based on the proportional support parties receive in local elections (an inclusive government of national unity approach that eschews the traditional 'winner takes all' model).

In practice there has been little difference between the models, especially where there are clear majorities, as legislation does not yet require proportionality in the executive committee model, although amendments to achieve this have been proposed. In some municipalities the executive committee is still dominated disproportionately by the majority party, or disproportionately represents smaller parties to maintain a coalition. The political culture of the majority is likely to determine whether a mayor in an executive committee system is likely to behave as an executive mayor. Neither of these systems have formal or legal implications for the role of the Municipal Manager, other than to whom they report.

Ward committees

Designed to enhance participatory democracy and community oversight, these are legally required structures. And therein lies its most significant shortcoming. A national evaluation of ward committees conducted in 2011, showed that while most ward committees were functional in that they were established and meeting regularly the intended outcomes, both in the form of objective results of improved services through community-based planning and monitoring and subjective results of improved trust

and perceptions of involvement in local government were significantly limited. Municipal practice and performance management indicates that legal compliance, rather than effective outcomes, is what is targeted. Both the process of establishing ward committees, which the ward councilor is instrumental in and chairs, together with a stipend paid to committee members, equivalent to a state pension in a context of high unemployment, has meant that ward committee positions are vulnerable to partisan capture and patronage. The support and involvement of administrators is limited ensuring that accountability for service delivery is only through the ward councilor who is not always sufficiently empowered in large city institutions to resolve service delivery problems and might not be sufficiently incentivized to equitably service all residents, rather than their own voting constituency. Ward committees rely on what the World Development Report calls the 'long-route of accountability' and they have been found to be at best, insufficient, for meaningful citizen engagement.

The political-administrative interface

It can be argued that state-building in South Africa and the institution-building required as part of its well-designed developmental local government system is vulnerable at the political administrative interface. Strong institutions have been built, later to decline and even collapse due to variations allowed by a highly porous interface.

Executive management

The designed intention of strong Municipal Managers throughout the local government system is to be lauded, but arguably did not go far enough. It is understandable that in building trust in a post-conflict society it was important for institutions to be led by Managers that democratically elected politicians could trust. However, 'cadre deployment' by ruling parties, a practice that takes place outside of open and competitive appointment processes to place appointees in posts decided in opaque political party processes has undermined the competency and independence of administrations. In turn, this has paved the way for significant and wide-spread corruption and mismanagement. An amendment to the Municipal Structures Act (2011)¹ sought to professionalize these positions by banning municipal managers from holding political office and requiring adherence to minimum professional competencies.

Municipal managers are appointed on a 5-year contract aligned to the local government term but offset by a year. There has been much debate over whether they should be permanent staff of the public administration. However, the view of the South African Local Government Association (SALGA) is that they should remain as 5-year contracts in keeping with similar contracts in the private sector. Concerns from mayors are that with permanent contracts they might be saddled with underperforming municipal managers indefinitely and at least the fixed-term nature enables them to part ways. This view reflects on the capacity of mayors to effectively manage performance in the context of labor laws and courts perceived to favour employees.

The Municipal Systems Act requires that the municipality assign clear responsibilities to management, with the municipal manager accountable for the overall performance of the municipality. This imposes a clear duty on the executive mayor and the municipal manager to ensure clear and accountable relationships between the administration and the political structures and office bearers of the municipality.

Although councils ultimately appoint the municipal manager, there is a strong element of an employee-employer relationship between the municipal manager and the executive mayor. There may also be ambiguous

¹ This amendment was recently overturned by the courts on procedural grounds, but a revised and equivalent amendment was passed by Parliament in 2021.

dual accountability of top managers to the municipal manager and political leaders. The municipal manager and top management are appointed by the Council, but top management report to the municipal manager, not to the mayor or the mayoral committee member responsible for their portfolio. In practice however, mayoral committee members often mirror administrative functions and encourage direct and operational accountability. This was evidenced in all four services reviewed.

The MFMA allows the Executive Mayor to provide general political guidance, and to monitor and oversee the exercise of responsibilities assigned to the Municipal Manager. However, s/he may not “interfere” in the exercise of these responsibilities. There is a clear intent in the MFMA to address a perceived problem of mayoral interference by removing the ambiguity in the Municipal Systems and Structures Acts by expressly stating that the Executive Mayor may not “interfere” and that the Municipal Manager is responsible for financial administration (City Support Programme (NT), 2018).

Disputes between Mayors and Municipal Managers are significant and can bring institutions to a standstill if not collapse, often attributed to an intrusion into the powers of the municipal manager and management. There have been many instances of fraud and corruption in cities that point towards inappropriate interference exercised by political office-bearers. This has been compounded by undue political interference by political parties in some cities, and the emergence of inappropriate relationships between regional party structures that seek to appropriate city decision-making, particularly in relation to priorities, tender awards, development and land use decisions, as well as personnel appointments is well-documented (City Support Programme (NT), 2018).

Disputes often result in suspension of the municipal manager or senior manager until the matter is either resolved in a labor court or through settlements. Both are protracted and costly.

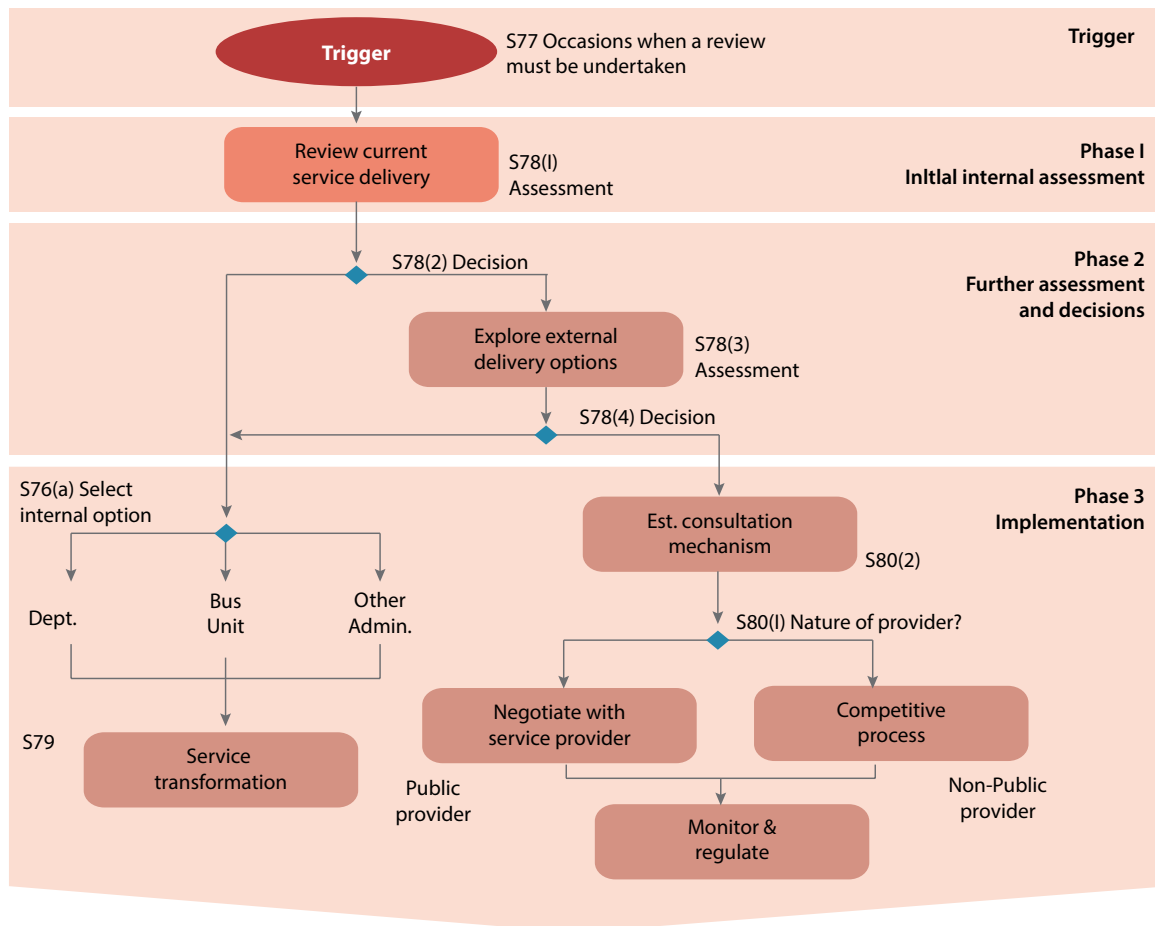
Particularly as South Africa’s urban politics changes, while predatory politics becomes more endemic and coalitions become necessary, there is a growing consensus that institutions need to be insulated and made more resilient to the shocks and stresses that can arise in the city’s political economy. This means sound professional recruitment of competent municipal managers and protecting them from undue interference, while still holding them professionally accountable for performance of the institution as well as the prioritized programme of the political executive. Such insulation will also require dispute resolution, that might be best delivered by an independent agency charged with this role of supporting mayors with and quality assuring senior management recruitment processes, maintaining a database of country-wide municipal management in good standing and mediating in dispute resolution (Department of Cooperative Governance, 2013).

Service Delivery Options

The Municipal Systems Act (2000) provides the legal framework for exploring alternative service delivery option. It specifies when a municipality must consider service delivery options, which includes as often as when producing and reviewing its IDP. It provides for internal mechanisms being a department, business unit or external mechanisms that include a municipal entity, another municipality, organ of state, community-based organization or non-governmental organization, or any other institution.

Despite there being an enabling process for alternative service delivery for more than 20 years, the default in practice has been for the most part to revert to internal options. This has partly been because the requirements for alternative options requires rigorous analysis and consultation, in a labor relations climate and political economy that is hostile to private participation in service delivery. It is just easier to continue with internal delivery without any requirement to show that it is better than external options.

FIGURE 21 SECTION 78 PROCESS FOR ALTERNATIVE SERVICE DELIVERY OPTIONS



Source (Palmer Development Group, 2003).

The four cases looked at in this study are thus not indicative of SA practice but are the exception. This is particularly stark for PPPs in particular. A recent study into PPP experience in South Africa found only 4 registered municipal PPPs, 2 initiated in 1999 (Mbombela and Dolphin Coast Concessions) before the new municipal legislation was enacted and before the national PPP framework and guidelines (2007) were developed and two further in 2017 in City of Tshwane for fleet management and office accommodation. It attributes much of the lack of experience to overregulation and insufficient support calling for regulatory reform, revising the PPP manual and providing better support (National Treasury, 2020).

Municipal Entity

In Johannesburg this study assessed two municipal entities developed as part of its iGoli 2002 plan to overcome bankruptcy and ensure the service delivery needs of its residents were met. The most severely financially affected service was Water and not only was a wholly municipal-owned company pursued, but it was supported by a finite management contract intended within five-years to turnaround performance and finances of the utility, while building capability that included staffing, systems and culture to perform well. The management contract experience was regarded as highly successful, with Joburg Water performing well financially and in terms of performance, but having a legacy impact on the institution which continued on a similar trajectory, but is showing signs of deterioration especially on water losses and non-payment. However, the initial design of the Joburg Water model was never fully realized, with the municipality re-centralizing

billing and customer relationship management, arguably core to the utility model. Governance and management of the utility were mostly undertaken during the 2001-2006 period in the 'spirit of the design' and in partnership. That is, a culture of governance and management were consistent with the design and intended purpose. The retreat after 2006, driven in part by IT solutions for the city, together with incremental loss of managerial autonomy over the years are some of the reasons for Joburg Water's deterioration.

This example has shown that ring-fencing can be a powerful way of managing a service holistically, that international private sector expertise can be leveraged in a finite goal-specific way even in a public sector institution and especially when a culture of partnership is prevalent, contracting is key, changes in organizational systems and culture can have a legacy impact, but that change can be eroded when the culture of governance and management are at cross-purposes with its design.

The example of Joburg Roads shows that while it is not easy to build a high-performance institution, it is easy to undermine, re-purpose and destroy institutions. It has shown that creating an arms-length entity as a not-for-profit company under a board governed by the Companies Act is no assurance against corruption and mismanagement or that decisions will be made with long-term interests of the service in mind. If anything, it can open opportunities for corruption and the politics of patronage, which is especially useful in holding unlikely and expedient coalitions together.

The example also highlighted the importance of units such as Joburg's governance unit, municipal manager or Executive Mayor playing a role to safe-guard competent managers and insulate the professional administration in utilities from undue interference.

Even without the context of corruption, it begs the question as to what the value of a governance board might be for a service that is rates funded and cannot raise debt. The value of external advisory expertise might just as easily be obtained through a technical advisory panel. Finally, it also highlighted the negative impact on integrated and co-ordinated service delivery, when external entities are pursued, without strong design and mitigation for integrated programmes. These are some of the reasons that have compelled the current and previous administrations to want to review the UACs model.

PPP

In Mbombela the study reviewed the municipal PPP experience of a 20-year concession. The example showed that a concession can be financially viable, even lucrative, for a concessionaire and deliver some of the service delivery and development needs of the community. However, it has shown that there are areas of inadequate performance and investment, which is something that both the concessionaire and municipality need to take responsibility for. The concessionaire is not adequately investing in infrastructure through its own funds or borrowing. The municipality is not sufficiently requiring this in its agreements, not directing infrastructure grants to residents of the concession area, not fulfilling payments it is expected to make and not adequately supporting the work of the concessionaire through by-law enforcement. At the heart of this is both lack of a partnership ethos, and a lack of regulatory culture and contracting capability. Contract management and monitoring has been argued to be weak and under-resourced. Support from national government in this complex and innovative endeavour has been wanting.

Department

The only service assessed in this study delivered by an internal department, should not be used to be indicative of internal delivery in SA. The practice is extremely varied, and this example is probably indicative of the level of priority accorded to the service and the level of performance of Mbombela. The municipality has

had subsequent interventions from provincial government and has been required by National Treasury to develop a financial turnaround strategy.

While the department has not been able to demonstrate significant service delivery innovation or improvement in solid waste services, it appears not to possess key data that would be required to effectively manage this service. Of more significance is that the performance indicators against which it is contracted are highly limited, lack relevance and do not do justice to the service. Its Integrated Waste Management Plan shows significant service shortcomings in rural areas and inadequate management of landfills through problematic contract management.

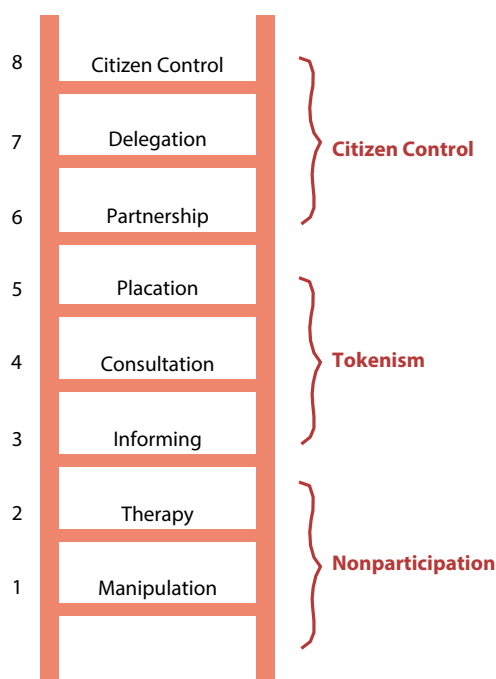
Regulation is critical

All four examples have shown that internal municipal regulation is critical. This regulation requires translating plans into norms and standards and contracting for it, monitoring performance adequately, supporting where necessary and firmly managing consequences through contractually provided mechanisms.

Internal regulation requires capabilities in the form of skills, systems and most importantly a culture of governance, management, and regulation.

The Citizen-Administrative Interface

FIGURE 22 ARNSTEIN'S LADDER



Arnstein's Ladder (1969)
Degrees of Citizen Participation

Source: *Citizens Handbook*, 2021.

Arnstein's Ladder has been widely accepted as a framework for assessing the depth of citizen participation and is used here to reflect on different practices. These have been described (*Citizens Handbook*, 2021) as:

1. **Manipulation and two Therapy.** Both are non-participative. The aim is to 'cure or educate' the participants. The proposed plan is best, and the job of participation is to achieve public support through public relations;

2. **Informing.** A most important first step to legitimate participation. But too frequently the emphasis is on a one-way flow of information. No channel for feedback;
3. **Consultation.** Again, a legitimate step: attitude surveys, neighborhood meetings and public enquiries;
4. **Placation.** For example, co-option of hand-picked 'worthies' onto committees. It allows citizens to advise or plan ad infinitum but retains for power holders the right to judge the legitimacy or feasibility of the advice;
5. **Partnership.** Power is in fact redistributed through negotiation between citizens and power holders. Planning and decision-making responsibilities are shared e.g. through joint committees;
6. **Delegation.** Citizens holding a clear majority of seats on committees with delegated powers to make decisions. Public now has the power to assure accountability of the programme to them; and
7. **Citizen Control.** Have-nots handle the entire job of planning, policy making and managing a programme e.g. neighborhood corporation with no intermediaries between it and the source of funds.

It has already been established that ward committees as pervasive as they are have not been used as a meaningful line of engagement with the administration and it is arguable, despite their diversity of successes, that they might be characterized in Arnstein's ladder as a form of placation, at best.

Communication

Municipalities communicate via their own and other media, with varying success. This information-sharing is a form of engagement albeit, mostly unidirectional, low-level, and limited.

Customer Care/Complaints

All four cases seem to benefit from some form of customer complaint systems, most often via email or telephone and in Joburg's cases specialist apps and social media. However, they all agree that this vehicle benefits those that are educated, literate, with municipal accounts and addresses and with communication infrastructure, data and the social capital to engage in this way. Poor and vulnerable communities, especially those receiving free basic services do not often exercise the confidence of 'client power' in this way.

Surveys

In the cases, we have seen examples of Joburg Water and Silulumanzi undertaking their own surveys of customer satisfaction. For JRA, it relied on surveys undertaken by its regulator, which could be argued as more appropriate.

Surveys are useful, but they are an entry-level form of remote consultation, albeit easier to access larger numbers of customers and citizens.

Customer and Community Forums

Both Joburg Water and JRA undertook meetings with key clients and communities. However, in Joburg Water the regional administrations convened community engagements on service delivery and forwarded issues to respective utilities. Joburg Water has recently designed a unit to specialize in urban management and citizen relations. The success of Joburg Water's regional administration model and the adoption of a new model has not been sufficiently assessed.

For the most part citizen engagement practices have firstly been limited in strengthening the ‘short route’ of accountability and examples lack depth when considered in a framework such as Arnstein’s Ladder.

Outside the cities that have been studied, there have been new and innovative forms of social accountability and citizen engagement that are better reflected in the upper rungs of Arnstein’s ladder displaying elements of citizen empowerment. These include the social audit practices initiated by civil society to monitor sanitation service provision contracts in Ekurhuleni (City Support Programme (NT), 2018), the Citizen-based Monitoring Practices of the Department of Performance Monitoring and Evaluation (DPME, 2016) and the Community Scorecard Pilot in Cape Town (City Support Programme (NT), 2018). The latter draws from World Bank practice in Ghana, Bangladesh, Malawi, and the DRC. In Cape Town, the Community Scorecard experience relied on an independently facilitated process of engaging civic leaders in a specific informal settlement together with utility managers (from water and electricity depots) responsible for delivering services to it. They would co-develop criteria and a scorecard to rate service delivery on in the area, conduct a joint walkabout to assess the area and score performance, return to a facilitate workshop where they would understand root causes and co- produce a response plan, co-implement, monitor and evaluate it. Albeit small, this was a good case of exploring methodologies for strengthening the ‘short route’ of accountability in the poorest neighborhoods.

Transparency and Empowerment

Real citizen engagement needs to be based on an openness to engage and be underpinned by transparency, Transparent data on finances, operations, procurement, and service outcomes will be important foundation for effective engagement. However passive transparency will still sit at the level of ‘informing’ in Arnstein’s ladder. It needs active empowerment by government through ensuring that citizens understand and make sense of the data to use it ensure partnerships and mutual accountability.

Regulation and Support Interface

FIGURE 23 ROLE OF HIGHER LEVELS OF GOVERNMENT IN SERVICE DELIVERY GOVERNANCE

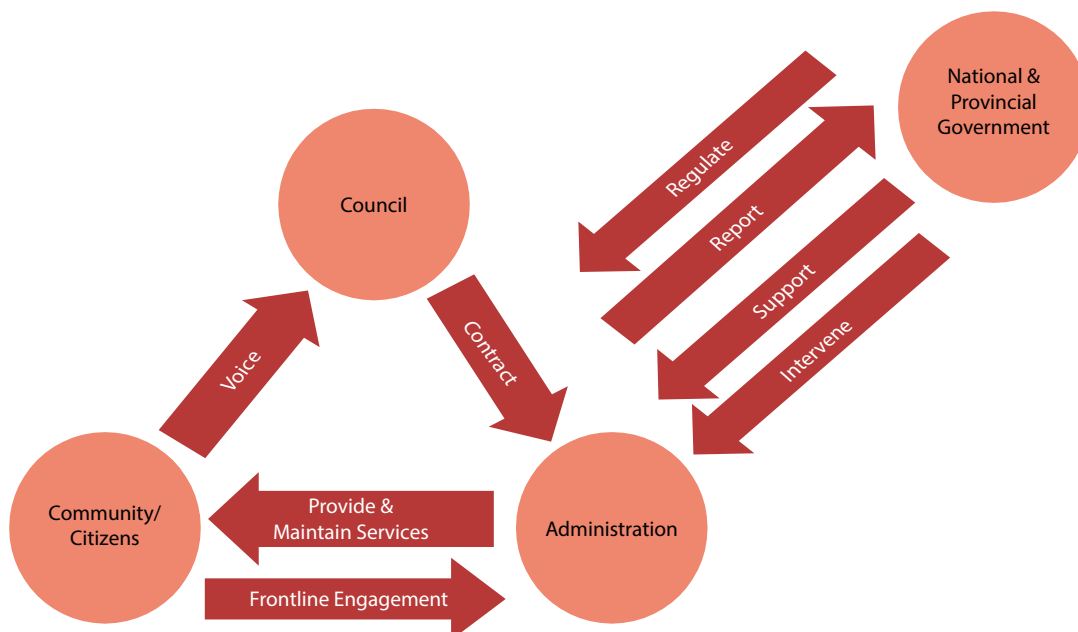


Figure 23 above re-interprets the WDR 2004 Governance Framework, to provide an expansion of the roles of higher levels of government. In the context of devolution and decentralization of service delivery, national government needs to play an active role, firstly in regulating performance. For cities, financial performance is well defined and monitored by the National Treasury. Service delivery performance needed sector departments to develop norms and standards and DCoG to co-ordinate monitoring. Some sector departments such as the Department of Water and Sanitation, at periods over the last twenty years, developed important monitoring programmes such as Blue Drop (focusing on drinking water quality) and Green Drop (effluent quality). However, these were suspended, arguably because of the results that they were showing were not politically acceptable. The national monitoring envisaged in the Municipal Systems Act has not been realized for local government. However, with National Treasury playing an increasing role in supporting cities, it has convened DCoG and other sector departments to improve and align an outcomes-based reporting system for metros that is now also being extended to secondary cities. Over the last few years there has for the first time been agreement on common measures to define good service delivery as agreed between NT, DCoG, sector departments and most importantly, cities. This is now in the early stages of implementation of reporting.

Support to cities, ideally should be based on the oversight and monitoring described above to provide differentiated and appropriate support. Amongst cities there is National Treasury's City Support Programme and DCoG Intermediate Cities Programme. These provide research, technical assistance, fiscal support, and intergovernmental voice to these cities. Support to cities also facilitates learning, especially amongst peer cities.

Sector support still needs to be provided by sector departments such as Department of Water Services. While a highly capable department in the first few years after democracy, this department too has seen a steady decline. It is thus not surprising that they have played an insufficient role in supporting the Mbombela concession.

Consequence management, or remedial support for poor performers extending to interventions where necessary is less well developed. The current practice of municipal interventions, initiated primarily by provincial government, have been shown not to be successful given the number of repeated interventions, and are often politically motivated. There has been a consistent call for this important instrument to be given a rational framework where the triggers for intervention are predictably and consistently applied, led by a diagnostic and effectively monitored and evaluated.

Lessons arising

In the absence of a rich understanding of the context and challenges facing Indian cities, this Report cautiously suggests the following lessons for devolution and alternative service delivery options in the global south

Diversity of service delivery and accountability practices. The best service delivery model is not obvious and will always depend on context, capabilities, and experience. It is very likely that 'one-size' does not fit all and that differentiated and diverse practices will produce 'home-grown' innovation and learning. This means encouraging a diversity of models and permutations within an enabling outcomes-based framework, applying both to forms of service delivery, but also to regulation and oversight methods.

Data must be backbone of reform. It is important that there is upfront and continuous investment in data, irrespective of where the function currently resides. This includes financial, operational, service delivery and

developmental outcome data. This data, consistent standards, and the capabilities to manage and use it, is needed to decide on devolution, contract appropriately, monitor and manage.

Regulation Capabilities. The capabilities to regulate service delivery, internally or externally, needs to be developed at all levels of government. Communities need to be actively empowered to build bottom-up regulatory capacity. These forms of regulation should be mutually re-enforcing, in that top-down regulation and oversight, enables bottom-up regulation and oversight and vice versa.

Transparency and Empowerment. All data by default, firstly needs to be made transparent to all stakeholders at state, city, civil society, and business levels. It is also important that stakeholders are fully empowered to interpret and use this data and are supported to understand it.

Learning, Evaluation & Support. Alternative service delivery options should be undertaken within a learning and evaluation framework. Regulatory methods, both top-down and bottom-up should also be undertaken within such a framework. There must be continuous investment in learning from innovation and practice and subjecting reform to ongoing evaluation. State governments will need to play an active support role and together with peer networks of cities will need to be custodians of learning and evaluation.

Unbiased Enabling legislative framework and fiscal framework focused on outcomes and principles. The legislative and regulatory framework for alternative service delivery should be enabling of a diversity of service delivery options and innovative accountability practices, without bias, requiring the same rigour for internal delivery choices using internal regulation. Legislation should focus less on prescribed processes and compliance and more on the desired outcomes and principles being adhered to. This equally applies to the fiscal framework to ensure that it is outcomes focused.

Resilient, insulated, yet accountable institutions. The South African experience has shown that within the same good constitution, sound fiscal and legal framework, there can be both successful institutional transformation for a time and institutional decline and collapse, often within the same institution. Central to this has been the lesson of creating strong professionally capable administrations, sufficiently insulated from the shocks and stresses of a changing political economy to ensure institutional resilience, but at the same time ensure programmatic accountability to the political representatives supported in the electoral process, as well as an ongoing direct accountability to the public and its interest.

Culture is omnivorous. Drucker once said that culture eats strategy for breakfast. It eats almost anything: structures and even laws. Tackling urban reform through legislation, structures and systems, needs the tackling of institutional culture in concert. An institutional culture needs to be built that values:

- A focus on developmental outcomes and service delivery;
- Innovation of service delivery methods;
- Integrity, social accountability, and transparency;
- Independent but accountable professional competence;
- A separation of regulation and implementation roles; and
- Evidence-based, data-driven, and learning-oriented governance practices.

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APPENDIX 1A – INTERVIEWS MBOMBELA



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Mr. Patrick Msibi	City of Mbombela	Office of the Municipal Manager - Service Delivery	Deputy Municipal Manager
Mr. Johannes Mulaudzi	City of Mbombela	Strategic Planning	Senior Manager
Ms. Momotho Thumbathi	City of Mbombela	Community Services (Solid Waste Management)	General Manager
Lesiba Maluleke	City of Mbombela	Solid Waste Management	Senior Manager
Bertha Seloane	City of Mbombela	Water & Sanitation	Senior Manager
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Ian Palmer	Palmer Development Group		Lead Consultant on Twenty-year review of concession
Nazreen Kola	Palmer Development Group		Lead consultant on section 78 assessment and Contracts Management Diagnostic Study
Joseph Ngala & Jael Nkuna	City of Mbombela	Customer Care	Manager and Supervisor

APPENDIX 1B – INTERVIEWS CITY OF JOHANNESBURG



Name	Institution	Designation
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Sean Phillips	Independent (Former JRA)	Former CEO
Ian Davies	Independent (Former JRA)	Former Manager for Reporting

Volume 2C

Country Report of United States of America (USA)



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INTRODUCTION



Structure of the Report

This report highlights the results of case studies conducted in two US cities regarding the provision of four different public services. The communities chosen for evaluation include:

- One medium-sized city – Dayton, Ohio – with a population of 140,000 (but serving as the heart of a metropolitan area of 803,000); and
- One large city – Chicago, Illinois – with a population of 2.71 million (but serving as the center city of a metropolitan area of 9.46 million).

In each city, this Report reviews the governance mechanisms for one urban service delivered by a City government department and one service delivered by an intergovernmental mechanism larger than the City itself. The four services reviewed in this report are:

- Solid waste collection: Provided by Dayton through a City department;
- Urban transportation: Provided by Dayton through its participation in the Greater Dayton Regional Transit Authority;
- Water supply: Provided by Chicago through its Bureau of Water Supply; and
- Wastewater treatment: Provided Chicago through its participation in the Metropolitan Water Reclamation District (MWRD) of Greater Chicago.

The selected case studies cover four very essential services that need to be provided in every urbanized area and illustrate both municipal and intergovernmental approaches to providing those services. They also reflect the provision of those essential services in cities of different size and scale, and with very different basic governmental structures.

Dayton, Ohio, was one of the first cities in the US to adopt a ‘City Commission/Manager’ form of government in which the elected body of the City hires a professional Manager who is then held responsible for providing day-to-day delivery of services in compliance with local, state, and federal law. In contrast, Chicago, Illinois, is a well-known example of a major city with a ‘Strong Mayor’ form of government – one in which the elected Mayor is the CEO of the City and is given broad authority to run the municipal government with relatively limited oversight by the elected City Council.

The following paragraphs contain brief background summaries of both Dayton and Chicago. This is followed by the four case studies on urban service delivery, and by a short evaluation to summarize similarities and differences from the case studies.

City Backgrounds

Dayton, Ohio, is the fourth largest city in that state, and the seat of the government of Montgomery County. While located on a major east-west Interstate highway (I-70), it is much smaller than the state's capital city of Columbus 70 miles to the east, which is at the intersection of three Interstate highways, and also smaller than the capital of the neighboring state of Indiana (Indianapolis) 115 miles to the west, which also has three Interstate highways running through it. In many ways, Dayton lives in the shadow of those two larger and better-connected centers of state government, as well as being economically subordinate to the second and third largest cities in Ohio – Cincinnati and Cleveland. Major employers in Dayton include the Wright-Patterson Air Force Base (technically located in neighboring Greene County), the University of Dayton, and one of the largest manufacturing plants operated by Proctor and Gamble, a global manufacturer of household goods.

Chicago, Illinois, is generally ranked as the heart of the third largest metropolitan area in the US. Located near the southern end of Lake Michigan it served for decades as the major rail and shipping transfer point for goods arriving from the East Coast for the center of the country, and now lies at the intersection of five Interstate highways. Its airport (O'Hare International) is ranked as the third busiest in the US (after Atlanta and Los Angeles) and the sixth busiest in the world. Chicago has a Strong Mayor form of government in which the strong executive powers vested in its elected leader are reinforced by the large size of its City Council (50 Aldermen), because the large number and correspondingly small sizes for the Aldermen's constituencies sometimes make it difficult for them to organize effective opposition to the exercise of the Mayor's powers.



OVERVIEW



Municipal Department – Dayton, Ohio

Description of Service Reviewed: Solid Waste Collection and Management

In Dayton, Ohio, solid waste services are delivered by and financed through a municipal department of the City – the Division of Waste Collection within the PWD. Services provided by the City department include:

- Providing waste containers to over 67,000 homes;
- Repairing and replacing those waste containers;
- Weekly collection of non-recyclable waste from 67,000 homes;
- Bi-weekly collection of recyclable waste from 67,000 homes using a “single stream” collection system;
- Collection of special/heavy materials, metal items, and tires on fixed schedule;
- Performing neighborhood cleanups upon request;
- Cleaning up illegal dump sites;
- Operating a green debris landfill at which the public and City staff can drop off yard, tree, and similar waste;
- Participation in the Montgomery County Solid Waste District (described below); and
- Contracting to collect solid waste for one Township and for the City of Moraine (adjacent to Dayton) on a private contract basis (described below).

Department of Public Works, Division of Solid Waste Management

Governing Body

The governing body of the PWD (and the Bureau of SWM) is the Dayton City Commission. The Commission is the governing body for all City functions that the Commission has not devolved to another special purpose entity or intergovernmental organization. The Commission is made up of the Mayor and four Commissioners elected at-large (not by geographic district) on a non-partisan basis. They serve overlapping terms of four years each.

Executive Management

In 1913, Dayton was the first large American city to adopt the City Manager form of municipal government. The City Commission appoints a City Manager to serve as the CEO of the City. Job qualifications for the City Manager, which were developed by the City Commission in consultation with the City's Department of Human Resources, include:

- Graduation from a four-year college;
- Advanced degree in public administration (desired);
- 5 years of progressive public administration work;
- Working knowledge of city departmental functions;
- Skills in budgeting and administering budgets;
- Skills in preparing and analyzing comprehensive reports;
- Ability to hire, fire, and supervise staff; and
- Effective oral and written communications skills.

The City Manager retains two Deputy City Managers who each have authority to oversee different City departments and has authority to dismiss those individuals. The current Deputy City Manager responsible for managing the PWD also oversees the Departments of Aviation, Finance, and Information Technology. Prior to being promoted, the current Deputy City Manager served for 18 years as a management budget analysis for the Dayton government.

The Deputy City Manager works with the City Department of Human Resources to recruit and hire staff for individual Department Managers. The Deputy City Manager and Manager of PWD with the Department of Human Resources to recruit and hire the Division Managers within each department.

The current Manager of the Division Waste Collection has been in the position for two years. He previously worked for the City Manager's office as an implementer of special programs and initiatives for several different City departments. Two years ago the City Manager assigned him to manage the waste management division, in part because of the foreseeable retirements of the Manager and Deputy Manager of the PWD. He referred to this as in part 'succession planning' to ensure that knowledge and practices related to waste management services and their relationship to other City functions would not be lost when those two individuals retire.

Legal and Institutional Arrangements

Coordination with Other Urban Agencies and Services

The primary means of coordinating Dayton's waste management activities with those of other departments and agencies is through the office of the City Manager.

The Division's major external operating relationship is with the Montgomery County Solid Waste District, which was formed by the surrounding County government to stabilize relationships between the 15 local government entities in the county and private operators of five landfills (and to discourage 'price gouging' by those private entities). The District is governed by a 15-member Board, with each participating local government having one representative on the Board. Dayton's representative is its Manager of PWD.

In addition, the City has executed a 5-year (renewable) contract with the District setting forth the terms under which the District will accept solid waste and residential recyclable materials collected by Dayton. The District operates a solid waste transfer station that collects solid waste from all the participating local governments and ensures that the transfer facility complies with all state and federal environmental regulations. The District, in turn, executes contracts with the five private landfill operators in Montgomery County and pays those operators to accept and manage its consolidated volumes of solid waste. The District contracts with private landfills also require that those landfills remain in compliance with state and federal environmental regulations. The District was created in part to prevent landfills from overcharging individual small local governments who did not have alternative ways to dispose of their solid waste, and it is working well.

A second institutional connection involves the outsourcing of commercial recycling. Because the Montgomery County Solid Waste District only accepts household recycling products from Dayton, the City has executed a contract with Rumpke Recycling to accept and process recycled products from commercial sources.

A third institutional connection involves two contracts between the City and a neighboring Township and the City of Moraine under which the Division of SWM collects solid waste and household recyclables from those communities in return for a fee. They set the fee for City solid waste services higher than the actual per household costs for collections within Dayton for two reasons. First, Dayton does not want to put its expensive equipment and staff to work for those who are not citizens of the City unless there is a clear benefit to its citizens. Selling those services at a profit ensures that Dayton is receiving more money than is needed to offset the use of its staff and equipment. Those extra revenues can offset financial losses on other City services (and indirectly reduce tax rates for Dayton citizens). Second, the City is prohibited by state law from subsidizing other public entities outside the city. If the City provided its solid waste collection services 'at cost' (i.e. not at a profit) and unexpected problems resulted in the SWM Division running at a loss, the Dayton city government would usually have to cover those losses. If that happened, the City would have inadvertently provided services to the other two communities at a loss – which would be an indirect subsidy to those local governments in violation of state law.

Interestingly, when Dayton offers to provide solid waste services to nearby communities it puts itself in competition with private companies that also collect solid waste on a contract basis, and on occasion Dayton's bids to collect waste in other communities have failed because the City was underbid by private waste collection companies.

Nature and Extent of 'Ring-Fencing' of Department

The budget for waste collection in Dayton is part of the City's general fund, which is not 'ring-fenced'. While the Division generates revenues by charging fees for its services, it is not legally required to conduct operations within the limits of those collected revenues. It sometimes receives annual subsidies from the Dayton general fund. The City has three ring-fenced 'Enterprise Funds' for the operations of its airports, its water operations, and its golf courses, but does not have one for solid waste collection.

However, the Division of SWM is subject to an informal ring-fence, in that its revenues are calculated and set (and adjusted annually based on the Consumer Price Index) at a level intended to offset its operating costs. Each year, the City hopes to find that there is no need to allocate general fund revenues to the Division. However, in most years the collected revenues do not manage to cover operating expenses due to unexpected equipment failures or other reasons, and the general fund does 'make up the difference' between collected funds and actual Division expenses. The profit earned from providing waste

management services to other local governments tend to offset, but usually do not completely offset, these relatively minor losses.

Oversight, Autonomy, and Accountability

Annual and Other Reports

The SWM Division does not create an Annual Report separate from those created for the PWD or the City as a whole. Dayton operates a web based open government website in which most documents related to City services from all departments are periodically updated and made available to the public.

How is the Strategic Direction of the Department Established and Reviewed?

The strategic direction for the Division of Waste Management is a subset of the City's overall strategic plan. There is no separate strategic plan for the Division. The strategic direction of the Division is established through internal discussions within the PWD, and the result communicated for consideration and inclusion in the City's strategic plan. Dayton's overall strategy covers nine focus areas and includes as strategic direction for the Division to "maximize recycling, reuse, and compost opportunities in the SWM program."

How and to Whom is Executive Management Authority Delegated?

See response above.

Nature of any 'Performance Compact', Performance Metrics, Links to Budgets and Funding, and Level of Autonomy

There is no written performance compact or similar document between the Division and the citizens of Dayton. The primary conduit for public engagement and opportunity to the quality or frequency of waste management services appears to be the survey discussed below.

Accounting Standards and Practices

The State of Ohio requires that all local governments comply with Generally Accepted Accounting Principles (GAAP). The Ohio Auditor of State is a state level office that aids the state's 5,900 local governmental agencies, entities, and organizations in performing their individual audits.

Auditing

The City of Dayton operates a Division of Tax and Accounting Administration, which supervises the accounts, collects revenues, makes payments, administers payroll, and audits the accounts of all City departments, including the PWD. The Division also manages all external financial reporting of the City to state and other authorities. The City's Consolidated Annual Financial Report (CAFR) is a document of about 200 pages prepared annually and audited by an independent private Certified Public Accountant firm selected through a competitive bidding process.

Finances

Budgeting

The City adopts an annual budget, and posts revenues and expenditures for each department. Through September 2020, the Division of Waste Management had generated revenues of US\$ 6,774,219 and expenses of US\$ 7,459,667. The deficit is covered through grants received from other governmental entities for specific projects or services, or by transfers from the Dayton general fund.

Sources and Uses of Operating Revenues

Dayton charges all property owners a 'waste collection fee' to offset the costs of its services. On a quarterly basis, the bills for those services are included with bills for water services provided by the City in order to reduce mailing and distribution costs. Waste collection fee amounts are set by the Dayton City Commission and are indexed to increase with the Consumer Price Index each year. The two dominant uses of operating revenues are for Division employee salaries and benefits, and for maintenance of its extensive fleet of waste collection vehicles and equipment. As noted earlier, a third major expenditure item is payments to the Montgomery County Solid Waste District for acceptance of the waste and recycling items collected by the Division. All other expenses are minor and incidental to these three.

Sources and Uses of Capital for Infrastructure Investment

The Division's major capital expenditure is for the purchase of its very expensive waste collection vehicles. Each year, the Division's request to purchase and replace equipment is included in the capital budget request of the PWD, which is then included in the City Capital Improvements Planning process. Because of City budget constraints, each department is asked to limit its capital request, and is likely to receive only a portion of its capital request. This year, the Division submitted a capital request for US\$ 7,00,000 (enough to replace two trucks) even though their capital replacement schedule suggested that four trucks should be replaced. Each year the Division must defend the cost-effectiveness of its capital request – which normally means defending why the large cost of buying a new vehicle is actually lower than the cumulative cost of increasingly expensive repairs to that truck over the next several years.

Fiscal Risks/Economic and Budgetary Impacts

Neither the Division of SWM nor the PWD maintains a contingency fund. Instead, the City of Dayton maintains a contingency fund to cover unexpected events affecting any City department. The most significant financial risks facing the department are the risks that:

- Collected revenues (which are fairly predictable) will not offset operating costs, and that the City general fund will not be able to cover the loss; and
- Breakdowns of unexpectedly large numbers of waste collection vehicles will result in the need for capital funds that the City's capital and contingency funds will not be able to cover.

Transparency, Citizen Participation and Other ('Upward' and 'Downward') Accountability Mechanisms

The City of Dayton appoints several Boards, Commissions, and Committees to obtain citizen opinions on various aspects of City government. Among these are the Environmental Advisory Board, whose duties are

“to identify, advise and review environmental matters concerning the City, the quality of the environment be protected, maintained and improved, and to assure its operations are not harmful to the environment.” The Board is made up of nine members appointed by the City Commission, who possess a “high level of interest, expertise, educational background, or work experience in environmental protection”.

In order to obtain general feedback regarding its public services, the City of Dayton operates a website called ‘Dayton Delivers’. Part of the website is titled ‘Dayton Collects’, which provides address- and area-specific information about waste collection schedules. An additional ‘Feedback’ section – generalized for all City services – allows citizens to make specific comments on City performance.

The City conducts periodic surveys to gather citizen feedback on which services are most important to them. The most recent survey found that the four most important services to City residents were Fire and Emergency Medical, Water and Wastewater, Police, and Neighborhood Conditions, and the City received high ratings on citizen satisfaction in the first three, but lower and uneven scores on the fourth. After these four, citizens ranked waste collection and recycling as next in order of importance and reported that 21% of citizens were ‘very satisfied’, 50% ‘satisfied’, and only 9% ‘dissatisfied’ with the quality of those services.

The survey also allows citizens to make open-ended written comments about any City services. In the latest survey, only seven individual comments (out of several hundred comments) were submitted regarding waste management services. Comments included:

“Would like to see more emphasis on recycling”, “Trash collection is great”, “Waste collection schedule needs to be mailed to each household annually”, “The trash litter in our city is just too much. You need to come up with a solution working with the community”, “The old trash trucks are a better design and don’t drop bags of trash in the road.

Outcomes, Including but Not Limited to

Any Available Service Delivery Indicators

The Division has in the past used traditional indicators – most specifically the ratio of tonnage of waste materials to the tonnage of recycled materials collected. This traditional indicator reflects the Division’s goal to have at least 13% of waste materials recycled rather than sent to the Solid Waste District for disposal in landfills. The push to divert waste materials into the recycling stream is the major goal of the organization for which metrics can measure performance.

Other metrics included the number and frequency of neighborhood cleanups conducted in response to public requests – with a goal of at least 25 per year.

However, the Division of SWM is now in the process of updating its service indicators to better align with budget priorities and to measure the impacts of its activities beyond simple tonnages of waste collected or recycled. As an example, the Department spends US\$ 600,000 per year in picking up items illegally dumped throughout Dayton. It is attempting to develop a metric to measure the benefit of additional public outreach and enforcement of illegal dumping as ways to reduce this US\$ 600,000 annual expense.

Any Available Infrastructure Investment Indicators

The Division makes capital investments – particularly in garbage trucks and related equipment – based on depreciation schedules for those types of vehicles. In general, solid waste collection trucks are expected to last 12-15 years, and the agency uses depreciation schedules to evaluate when the additional cost

of maintaining the vehicle during that period exceed the value of the vehicle. Most maintenance costs for these heavily used vehicles occur after they are 8 years old, and each year the Division needs to evaluate whether they should budget for anticipated annual repair costs to the vehicle or avoid those and future repair costs during the vehicles' expected lifespan by replacing the vehicle 'early'. In other words, they evaluate whether 'early' replacement of the vehicle would be more cost-effective for the City than continuing to repair the vehicle.

Any available data on organizational performance and public satisfaction

See response above.

Municipal Department – Chicago, Illinois

Description of Service Reviewed: Water Supply

In Chicago, Illinois, clean drinking water is provided by and financed through a municipal department of the City – the Bureau of Water Supply within the Department of Water Management. Services provided by the Bureau include:

- Operation of two 'bibs' to collect water from Lake Michigan, located approximately two miles out from the waterfront;
- Water treatment at one of two different water treatment plants;
- Operation of 12 pumping stations to increase water pressure for distribution through a system of water mains;
- Transmission of potable drinking water throughout the City and to 126 suburban communities;
- Operation of water quality testing laboratories to maintain and confirm compliance with standards established in the Safe Drinking Water Act; and
- Collection and transmission of wastewater to sewer mains operated by the MWRD for treatment, which serves 128 communities (two more than those to which the City provides water service).

Department of Water Management, Bureau of Water Supply

Governing Body

The governing body of the Bureau of Water Supply (and the Department of Water Management) is the Chicago City Council, which is the governing body for all City services for which the City Charter or the Council have not delegated governance authority to a special purpose or intergovernmental entity. The City Council of Chicago is made up of 50 Aldermen, each of whom is elected from and represents the interest of a different geographic area (a Ward) of the City for a 4-year term. The City Council's legislative and governance powers are defined by the State of Illinois home rule powers granted to the City and by the Chicago City Charter.

A City Charter is foundational document adopted by the voters at the time a new city is legally created, and that can be amended by the voters from time to time after that to keep it up to date. It serves the same purpose that a 'Constitution' serves for a nation; it sets the outer boundaries within which the adopted legislature may make laws. The City Council may not enact any ordinance that is inconsistent with the City Charter; it must first ask the voters to amend the Charter, and if the voters do not approve the change the City Council may not enact the ordinance.

Executive Management

Unlike Dayton, Chicago does not operate under a City Manager form of government. Instead, the Mayor is the CEO of the City. The Mayor works with the Chicago Human Resources department to recruit and hire Commissioners (a term used in Chicago for employed managers, rather than elected, officials) for each City department. Each department works with the Department of Human Resources to fill vacancies or new positions within that department. The Commissioner of Water Management is appointed by the Mayor but must be approved by the Chicago City Council. The Mayor generally has the power to dismiss an appointed department Commissioner and does not need the approval of City Council to do so. However, the Council will still need to approve the Mayor's proposed replacement for the dismissed Commissioner.

In addition to its Commissioner, the organizational structure of the Department of Water Management includes a First Deputy Commissioner, two Managing Deputy Commissioners, and five Deputy Commissioners – one of whom is responsible for the Bureau of Water Supply. The Deputy Commissioner for Water Supply reports directly to the First Deputy Commissioner, who reports to the Commissioner.

The current Acting Commissioner of Water Management was appointed in 2020 following the resignation of the previous Commissioner, who had served for three years with the specific mandate from the Mayor to address serious allegations of racism and poor working conditions in the Department, and had mixed success in achieving that goal. The current acting Commissioner was previously one of the five Deputy Commissioners within the Department.

Legal and Institutional Arrangements

Coordination with Other Urban Agencies and Services

The primary way in which the Bureau – and the Department – coordinates with other agencies and services is through the 'chain-of-command' in Chicago city government. Deputy Commissioners coordinate with Department Commissioners, who then coordinate with Commissioners of other City departments. There are currently 19 Departments, each of which is led by a Commissioner, plus 14 offices, commissions, or boards whose heads are appointed by the Mayor but do not have formal Department Commissioner status.

The major responsibility of the Bureau for outside coordination involves the MWRD, which accepts sanitary sewage effluent for treatment. While the City's responsibilities related to drinking water involve collection, treatment, testing, and distribution, its only duty regarding sewage is to convey the effluent to large sanitary sewer mains operated by MRWD, which is responsible for treatment, compliance, and collection or disposal of byproducts. Chicago residents are included in the MWRD boundaries and pay additional property taxes to the District to fund its services, so there is no separate contract between MWRD and the City of Chicago regarding payments for accepting and treating effluent for the City.

Nature and extent of 'ring-fencing' of department

The Bureau of Water Supply is financed through the City of Chicago 'Water Fund' – a separate fund created to cover the costs of various City services – including but not limited to water supply. The Bureau is 'ring-fenced' in that the Water Fund is an 'Enterprise Fund' created to be used for limited purposes, and the Bureau does not draw on portions of the Chicago city budget outside of the Water Fund. However, it may not spend all the revenues it collects and deposits into the Water Fund to support its services. Some revenues in that fund are used to support other administrative services related to the provision of water (such as building maintenance, fleet maintenance, and legal services). The staff members of other Departments that are providing services to the Bureau of Water Supply are generally paid from the Water Fund through inter-fund transfers.

Oversight, Autonomy, and Accountability

Annual and Other Reports

Every year, the City of Chicago produces an Annual Report titled “Department of Water Management, Water Fund, Comprehensive Annual Financial Report” (CAFR), which is focused on the financial accountability of Department operations. While additional information is posted periodically on the City’s website, it does not appear that the Bureau or Department regularly prepare other reports on their substantive operations, investments, or achievement.

How is the Strategic Direction of the Department Established and Reviewed?

The strategic direction for the Bureau – and the Department – is established in the Chicago Water Agenda. This document establishes priorities for water conservation, protecting water quality, managing stormwater, and outreach/mobilization of the public in support of these priorities. Although published in 2003, the Agenda does not state a planning horizon, but instead states it is to guide Chicago’s water policy “for many years”. It has apparently not been updated since 2003.

How and to Whom is Executive Management Authority Delegated?

See response above.

Nature of any ‘Performance Compact’, Performance Metrics, Links to Budgets and Funding, and Level of Autonomy

Neither the Department nor the Bureau have a ‘Performance Compact’ with the citizens of Chicago (or any of the other 126 communities to which they provide safe drinking water) by which their budgets are linked to achievement of specific service targets. The nature of water supply services is such that community satisfaction is based almost solely on the continued, predictable supply of water that meets federal and state safety standards. Since the Bureau consistently meets that standard (and has for decades) it would be difficult to calibrate different levels of ‘better’ or ‘worse’ performance to which budget impacts could be linked.

Accounting Standards and Practices

The State of Illinois generally requires that all local governments comply with Generally Accepted Accounting Principles (GAAP), and the federal government requires compliance with those standards (as well as additional grant- or formula-specific accounting standards) when federal funds are involved. The Chicago Department of Finance prepares independent financial statements for each of the Enterprise Funds as well as the CAFR. The CAFR for the Water Fund reports that the Government Finance Officers Association of the United States and Canada awarded the Water Fund a Certificate of Achievement for Excellence in Financial Reporting in 2017.

Five different Bureaus within the Finance Department focus on reviewing financial transactions and preparing accounting reports for different aspects of City operations. One of the five is devoted to performing these tasks for the three Enterprise Funds (including the Water Fund) and a second Bureau focuses on accounting and financial compliance for any state, federal, or other grants received by the City for various capital or operating purposes or for special initiatives.

Auditing

By ordinance adopted by the City Council, Chicago requires that the financial statements of the Water Fund be audited by independent certified accountants each year. The outside auditors are selected by the Chicago Department of Procurement Services through a competitive bidding process among qualified firms of Certified Public Accountants licensed to do business in the State of Illinois.

Finances

Budgeting

The Water (Enterprise) Fund is an independent line item in Chicago's overall City operating budget. The largest sub-line item in the Water Fund budget includes funds for the primary operating agency – the Department of Water Management. However, other sub-line items include funds for supporting departments when they work on water-supply activities, such as the Departments of Law, Treasury, Human Resources, Procurement, Buildings, Fleet and Facility Management, and Information Technology, the Office of Budget and Management, and the Inspector General. In 2019, the ring-fenced revenues for the Water Fund were approximately US\$ 761 million. Expenses included US\$ 500 million for operations, US\$ 5 million for capital outlays, US\$ 217 million for debt service, and US\$ 40 million for pensions.

Sources and Uses of Operating Revenues

The vast majority of the Water Fund revenues – US\$ 722 million – are generated from Water Rates billed to the consumers of water in the City of Chicago and residents of the 126 other local government units that purchase water from the Department of Water management. In 2020, the water rate is US\$ 4.08 per 1,000 gallons of water delivered to the customer. Other significant revenue sources include US\$ 10 million in transfers in from other funds and US\$ 18.5 million in miscellaneous revenues.

Of the US\$ 761 million Water Fund budget, only US\$ 215 million represented payments directly to the Department of Water Management for performance of its services. Of that number US\$ 89 million was for the Bureau of Water Supply (obtaining, treating, and testing the water), and another US\$ 91 million went to the Bureau of Operations and Distribution (transporting the water to customers and effluent to the MWRD sanitary sewer mains).

US\$ 31 million of the overall fund expenses went to the Fleet and Facility Maintenance Department to maintain the vehicles, equipment, and installations used by the Department. The largest amount of Water Fund revenues – US\$ 493 million – went to 'General Finance', and of that amount US\$ 443 million went to 'Specific Items and Contingencies'. This broad line item includes category includes pension contributions, reimbursements of costs, transfers to other funds, bond proceeds, non-personnel program expenses, settlements, and judgments. Each major budget item and Enterprise fund in the Chicago budget makes a major contribution to this diverse category of expenses.

Sources and Uses of Capital for Infrastructure Investment

The Bureau – and the Department – receive a vast majority of capital funds through the issuance of municipal bonds by the City of Chicago. This is reflected in the relatively low budget number for capital expenses (approximately US\$ 5 million) and the much higher figure for debt service (US\$ 217 million). Water charges are often pledged to ensure the repayment of municipal bonds issued for capital projects related to water supply.

In addition, however, the budget shows that the Water Fund receives US\$ 10 million for capital expenses (presumably those that are not included in, or that arise between, municipal bond issues to cover those types of capital needs).

Fiscal Risks/Economic and Budgetary Impacts

Potential fiscal risks that may be experienced by the Bureau of Water Supply are not estimated or addressed separately but are implicitly included in the overall risks that may be experienced by any or all City services. The City of Chicago maintains a variety of reserve funds associated with its general fund and specific Enterprise Funds, and contributions to those reserves are included in a broad 'Specific Items and Contingency' category for many City departments and funds. It was not possible to isolate reserve funds from other items included in that broad budget category.

Transparency, Citizen Participation and Other ('Upward' and 'Downward') Accountability Mechanisms

The City of Chicago conducts a variety of surveys to evaluate citizen satisfaction with the services it provides. Its 2021 Budget Survey asked citizens to rank 10 city services in terms of their importance. The operations of the Bureau of Water Supply were included in a broad category titled 'Infrastructure Services,' which the public ranked as third in importance after 'Community Services' and 'Public Health'. The survey also asked citizens to allocate a hypothetical US\$ 1,000 among the 10 categories of services. Despite ranking infrastructure as a relatively important type of City service, citizens would (on average) allocate only US\$ 98 out of US\$ 1,000 to those services.

Because the safety of the water provided to citizens is a primary indicator of the quality of that governmental service, the Department of Water Management prepares a Chicago Water Quality Report on an annual basis. This report documents continued compliance with federal and state water purity standards, and identifies specific contaminants discovered in the water supply during that fiscal year. For each contaminant, the report identifies the highest level detected and the range of detected.

In 2019, the document reported no violations of water quality standards, but acknowledged one technical violation of testing standards. The violation occurred during very warm weather, when two attempts to deliver a water sample to the testing facility were delayed and the sample arrived too warm to be analyzed. A third attempt was successful and confirmed compliance with water quality standards but arrived after the deadline for that round of testing and was therefore a violation. The Report identified steps the Department had taken to prevent a recurrence in the future (additional refrigeration and delivery by Department employees – rather than delivery services – during very warm weather).

Although the City apparently does not conduct citizen satisfaction surveys related to water supply or organize an advisory group related to that service, it does operate an automated website with 55 different forms to report or comment on city services. Six of those forms enable citizens to file reports regarding water services, including: low water pressure, open or damaged water hydrant, standing water, water leak, water in basement, and water in the streets. Many of the City responses to those complaints are available on-line. In the case of complaints regarding low water pressure it appears that there is often uncertainty regarding whether the problem is caused by the Department's equipment mains or by buildups of sediment in individual building water pipes, and the Department sometimes documents that since other nearby buildings have not reported low water pressure the issue is probably in the building itself.

Outcomes, Including but Not Limited to

Any Available Service Delivery Indicator

As noted above, the key indicator for public water supply involves the continued safety of the water, as documented by compliance with state and federal water quality standards. The Department of Water Management Reports confirm compliance with that standards. A second indicator is the reliability of the water supply, both in terms of water delivery pressure and prevention of water leaks that could damage nearby property. The City of Chicago does not have an indicator related to reliability of water delivery and pressure but maintains an automated system to categorize complaints related to both water pressure and leaks. It apparently does not prepare a report summarizing those complaints on an annual or periodic basis, but some responses to complaints are available on-line.

Interestingly, the City does maintain metrics related to the speed at which it responds to other complaints about its services. The Department of Transportation maintains service delivery metrics related to pothole repair, pavement cave-ins, malfunctioning traffic lights and streetlights, and missing Stop signs. The Department of Streets and Sanitation has adopted service metrics related to tree debris, graffiti removal, garbage cart requests, rodent baiting, and violations of the sanitation code. Although the website containing these metrics appears designed to report City levels of compliance with these metrics, at the time of writing each report was indicated as being a private dataset and was not available to the public.

Any Available Infrastructure Investment Indicators

We were not able to identify water infrastructure investment indicators used by the City of Chicago to measure the adequacy of its capital replacement program. While it is likely that national indicators exist, it is also likely that the extreme age (over 120 years) and size of the Chicago water system make it relatively unique and difficult to align with standardized metrics.

The City does maintain a website related to the performance of the municipal bonds it has issued for water system improvements. That website indicates that the City's senior lien water revenue bonds (to be repaid if necessary, with priority payments from the Water Rates) maintain an A+ Standard and Poor's rating and an AA Fitch rating. Second lien revenue bonds have an A rating from Standard and Poor's, an AA- rating from Fitch, and an AA rating from Kroll. These relatively high bond ratings indicate that underwriters believe investments in Chicago water-related bond issues to be safe investments, which in turn suggest that the operations of the system are stable. The ratings also indirectly indicate that underwriters are comfortable that the City's program of capital improvements is adequate to maintain the reliable operation of the system, so that water charges revenues will remain stable and that bond defaults are unlikely. Although this information does not confirm Chicago's compliance with published capital investment indicators, they do suggest that investors feel the City's capital replacement program is adequate.

Any Available Data on Organizational Performance and Public Satisfaction

See responses above.

Intergovernmental Structure – Dayton, Ohio

Description of Service Reviewed: Urban Transportation

In Dayton, Ohio, urban transportation services are provided through an intergovernmental authority created and designed to provide that service – the Greater Dayton Regional Transit Authority. The Authority was

created in 1972 by the combined efforts of the City of Dayton and Montgomery County. The system provides over 11 million rides annually and is the fourth largest public transportation system in the State of Ohio. The Authority is one of only five in the United States that operates a fleet of electric trolley busses, and has been a leader in using hybrid electric busses to allow its electric fleet to travel up to 15 miles without electricity or fossil fuels. Although originally designed to serve Montgomery County the system was expanded into neighboring Greene County to serve the area's largest employer – the Wright- Patterson Air Force Base and related facilities. Services provided by that authority include:

- Provision of bus and trolley service on 32 bus routes inside and outside the City of Dayton, the City of Kettering, and 22 other communities in Montgomery and Greene Counties;
- Maintenance of over 3,000 bus stops;
- Maintenance and operation of a fleet of 152 buses and 54 trolleys;
- Construction and operation of five transit centers with heated and cooled waiting areas, public restrooms, telephones, and security monitoring; and
- Maintenance (or shared maintenance) and operation of 25 park-n-ride lots.

Greater Dayton Regional Transit Authority

The Authority was created in 1972 by action of the Montgomery County Commissioners under authority granted by Ohio Revised Code Chapter 306 (County Transportation System, Regional Transit Authority, Regional Transit Commission). It consolidated and replaced several earlier public transportation entities created by Dayton and/or the surrounding communities, the earliest of which was created in the 1850s.

Governing Body

The Authority's governing body of the Authority is a Board of Trustees of nine individuals – seven appointed by the Montgomery County Commission and one each appointed by the cities of Dayton and Kettering. The Board primarily serves as an oversight body involved in reviewing and approving strategic plans, while almost all aspects of service provision and day-to-day operations are left to the executive leadership team, with one exception: Expenditures over US\$ 100,000 must be approved by the Board.

Executive Management

The Board of Trustees recruit and hire a CEO, who then has authority to hire the remainder of the executive leadership team. That team consists of a COO, Chief Customer and Business Development Officer, Chief Capital Officer, Chief Financial Officer, Chief Information Officer, Controller, Director of Transportation, Director of Maintenance, Director of Procurement, Director of Labor Relations, Director of Human Resources, and Director of Training, Safety, and Risk. Transit bus operators and maintenance personnel are then recruited, hired, and managed through the Human Resources and Labor Relations Departments. The current CEO has served in that position for 15 years, having previously served in executive leadership positions in the states of Montana, New Hampshire, and Kentucky.

Legal and Institutional Arrangements

Coordination with Other Urban Agencies and Services

Although the executive management team reports to the Board of Trustees, it also maintains extensive direct relationships with the City governments of Dayton and Kettering, the Montgomery and Greene

County governments, the other 19 communities served by the Authority, and with various public school districts. Primary lines of communication are directly with those entities rather than through the Board of Trustees.

The Authority also has service provision contracts with some public-school districts to provide transportation services that would otherwise have to be provided using school busses. As in many urban areas, the City and school district administrations do not want to duplicate bus services needed to transport children to public schools, so the school district contracts with the Greater Dayton Regional Transit Authority to allow its students to ride RTA busses on existing RTA bus routes. These arrangements have changed over time depending on the degree to which RTA bus routes overlap with school bus routes.

In addition, the Authority maintains contracts with human service departments in Dayton, Kettering, and Montgomery County to provide transportation services for Medicare recipients, to enable those recipients to access services for the elderly, disabled, or ill.

Nature and Extent of 'Ring-Fencing' of Authority

The budget of the Greater Dayton Regional Transit Authority is largely 'ring-fenced' in that it maintains an independent budget (approved by the Board of Trustees) and the revenues reflected in that budget cannot be used by any other entity for any other purpose than the provision of urban transportation services. Some major sources of operating and capital funding are also limited for use only on these services by state or federal law.

Oversight, Autonomy and Accountability

Annual and Other Reports

The Authority does not produce an annual operating report, but information on ridership, routes, finances, and other matters related to Authority operations are available on the RTA website. In addition, its finances are detailed in a document titled Greater Dayton RTA Single Audit, but the Authority does not produce the type of Consolidated Annual Financial Report prepared by many municipalities. Because significant funding is obtained from the federal government, there are numerous compliance reports that are periodically produced by the Authority to confirm compliance with the terms of federal funding and compliance with other federal Acts, such as the Americans with Disabilities Act.

How is the Strategic Direction of the Authority Established and Reviewed?

The Greater Dayton RTA 2020 Strategic Plan was adopted in 2015 intended to guide the operations of the Authority through a five-year period ending in 2020, and has now expired. That plan was developed internally by RTA staff under the direction of the Executive Director, and its replacement five-year strategic plan is now being prepared by Authority staff. The Board of Trustees approves each strategic plan and uses it as a benchmark to provide annual performance evaluations of the CEO. The 2020 Strategic Plan emphasized four pillars of performance: Safety, Reliability, Accessibility, and Professionalism.

How and to Whom is Executive Management Authority Delegated?

See response above.

Nature of Any 'Performance Compact', Performance Metrics, Links to Budgets and Funding, and Level of Autonomy

The Authority does not have a performance compact or other arrangement by which it commits to achieving specific service delivery targets as a condition of funding, or by which its funding may be adjusted upward or downward based on achievement (or non- achievement) of performance targets.

One small exception is the Authority's 'On-Time Service Promise', which states that if a bus or trolley is more than 30 minutes late, the customer can request a full refund of the bus fare from the RTA if they file a claim noting the date and location of the late service within 10 days after the incident. This has the effect of penalizing the RTA budget if it provides late service. However, since customer fares make up only 14% of the agency budget, and obtaining the refund requires filing an after-the-fact claim (i.e. the customer still has to pay the fare when they board the late bus), and many customers may not bother to file the claim, it is not likely that this promise has any significant impact on the Authority's efforts to provide on-time service.

In addition, the RTA publishes a Customer Service Guarantee, which includes "Your right to safe service; your right to courteous, clean, accessible, and dependable service; your right to on-time service (linked to the refund program described above); your right to be notified of service delays; and your right to be heard." In practice, however, these promises are enforced through a fairly standard complaint system (i.e. customers could file complaints regarding these issues even if the promises had not been published), with one exception. The RTA website includes a link titled 'Write to the Top' which apparently sends the customer complaint or issue directly to the CEO.

Accounting Standards and Practices

Like most other local government entities in the United States, the Authority is required to comply with Generally Accepted Accounting Principles (GAAP). Its financial reports are reviewed by the Board of Trustees on a periodic basis. In addition, the Authority must comply with additional accounting requirements related to federal operating and capital grants it receives. Most significantly, it must complete a Tri Annual Review by the federal government to confirm compliance with federal conditions on capital funds granted to the agency for the purchase of busses and equipment. Information on capital and operating expenses and revenues are updated annually on the Department's.

Auditing

As an Authority created pursuant to state law, the State of Ohio requires that the Greater Dayton Regional Transit Authority be audited annually by the Ohio Auditor of State. These audits are performed by the state government agency itself, rather than being performed under contract by a private Certified Public Accountant firm. The most recent available audit includes a confirmation by that state official that "We audited in accordance with auditing standards generally accepted in the United States of America and the financial audit standards in the Comptroller General of the United States' Government Auditing Standards."

Finances

Budgeting

The budget of the Regional Transit Authority is prepared annually by the executive management team and approved by the Board of Trustees. In 2019, the Authority budget was US\$ 68.9 million.

Sources and Uses of Operating Revenues

The major source of operating revenues for the Authority is the one-half cent (US\$ 0.005) sales tax added to all taxable goods sold in Montgomery County. That source accounts for 58% of revenues, while another 23% comes from operating grants received from the federal government. Fares collected from riders generate only 14% of revenues. The State of Ohio contributed only 3% of revenues, a number that fluctuates from year to year because state revenues are generally only received for specific purposes or pursuant to a state initiative – there is no regular source of funding from the state. Investment and miscellaneous income accounted for the remaining 2% of revenues.

Sources and Uses of Capital for Infrastructure Investment

The major source of Authority capital funding is the federal government, which in 2019 provided over 99% of the RTA's US\$ 31.5 million capital budget. Relatively small grants for specific purpose made up the final less-than-1%. In that year, the State of Ohio provided no capital funds, but in some years, it provides 'pass-through' funds when the state receives a federal capital grant and passes some of those funds on to service provision agencies and authorities.

The major uses of capital funds are for replacement of busses and trolleys (67%), electric system infrastructure for the trolley system (12.5%), transit hubs and facilities (11%), and other equipment (9.5%). The largest item – replacement of busses and trolleys – fluctuates widely from year to year, because the federal grants used to purchase busses require that they not be replaced before the end of their stated economic life. In years when many older busses reach that threshold, the capital expenses to replace them are high. In years when fewer busses reach the end of their calculated lives, the unexpended capital funds are rolled over to the next year. The Authority's annual budget estimates capital expenses five years into the future in order to anticipate and plan for these fluctuations in fleet replacement costs.

Fiscal risks/economic and budgetary impacts

The Regional Transit Authority maintains substantial budget reserves to minimize financial risks, and the amount of those reserves varies from year-to-year depending on whether a major capital project – such as the construction of a transit hub – is underway. In addition, capital reserves tend to be high because of year-to-year variations in when federal capital grants are received and when they can be spent to replace aging busses and trolleys. In 2019 the Authority reported a cash balance carryover from 2018 of US\$ 38 million – or over 40% of its operating budget. However, majority of these carryovers were apparently committed for capital replacements in 2019, with the rest being available as reserves to cover unanticipated expenses.

Transparency, Citizen Participation and Other ('Upward' and 'Downward') Accountability Mechanisms

The Greater Dayton Regional Transit Authority has organized an RTA Customer Advocacy Group as a formal vehicle for citizens to advocate for their urban transportation interests. The stated purposes of the advocacy group are to:

- Promote RTA responsiveness to riders;
- Advise RTA staff on ways to resolve issues with riders to improve the bus system; and
- Recommend possible solutions to RTA staff, based on public input.

However, the RTA is not actively involved in management of the group. The Advocacy Group largely organizes itself, elects its own officers, and conducts its own meetings every two months. Minutes of its meetings are posted for public review. The Authority provides meeting space for a meeting with the group on a quarterly basis.

In addition, the Authority uses several informal mechanisms to connect with its ridership and client base. It meets upon request with elected and appointed officials from Dayton, Kettering, Montgomery County, Green County, the University of Dayton, Wright-Patterson Air Force Base, and other consumers of RTA services to answer questions, resolve issues, and consider operational improvements.

The Authority's website also contains a Customer Support page advising the public of their rights – including rights to accessible vehicles and non-discrimination – under Title VI of the Civil Right Act and explaining the On-Time Service Guarantee. Another link leads the public to the Customer Advocacy Group described above.

Finally, conditions attached to federal operating grants require that the Authority conduct public outreach meetings when changes to bus fares are considered, or where any change in operations would affect rights protected by federal Civil Rights legislation, including the Americans with Disabilities Act.

Outcomes, Including but Not Limited to

Any Available Service Delivery Indicators

The Greater Dayton Regional Transit Authority does not develop or maintain its own service delivery indicators. Instead, the Authority is a member of the American Bus Benchmarking Group, a non-profit organization created in 2011 to allow transit agencies for mid-sized US cities to compare information on service delivery and to learn from each other. The group develops and maintains 'benchmarks' – informal standards about what 'normal' or 'good' levels of service for specific services would be. Members of the group agree to measure their performance in various ways, and the organization provides a confidential forum in which members can compare their measured performance to others, and discuss the possible reasons behind low performance, without opening themselves up to allegations of failure to provide acceptable levels of service. The group is associated with a similar organization in the United Kingdom, and its website lists eight additional unrelated organizations involved in measuring urban transportation performance. Specific benchmarks for performance are only available to members of the group.

Any Available Infrastructure Investment Indicators

Because almost all the Authority's capital budget comes from federal grants for the replacement of busses, trolleys, and other major equipment items, their investments are controlled by federal standards on how capital funds may be used. Most importantly, the federal government assigns each bus purchased with its funds an economic lifespan of 10-12 years, depending on the mileage covered by the bus during those years (e.g. a bus that covers longer routes and accumulates more miles may be assigned an economic life of 10 rather than 12 years). Federal funds may not be used to replace the vehicle until the bus or trolley has passed those longevity thresholds. Until that time, the agency must maintain the vehicle using its operating and maintenance funds.

Any Available Data on Organizational Performance and Public Satisfaction

See responses above

Intergovernmental Structure – Chicago, Illinois

Description of Service Reviewed: Wastewater and Stormwater Treatment

In Chicago, Illinois, sanitary, sewer and stormwater flows are treated, and the facilities for doing so are financed by, the MWRD. Services provided by the MWRD include:

- Treatment of sanitary sewer flows from Chicago and 128 other communities in Cook County, Illinois;
- Treatment of stormwater flows from the same communities;
- Operating seven water reclamation plants, 560 miles of sanitary and storm sewer interceptors and mains, 34 storm sewer reservoirs, and 23 pumping stations;
- Ensuring that sanitary sewer and stormwater flows do not contaminate Lake Michigan, which is the drinking water source for almost all these communities;
- Managing 76 miles of waterways to transmit water from Lake Michigan to the Gulf of Mexico (a responsibility gained when Chicago reversed the flow of the Chicago River to flow out of the lake in order to avoid sanitary sewer flows entering its drinking water supply);
- Recovering heat energy from wastewater and stormwater;
- Recovering potentially valuable materials such as nitrogen, phosphorus, biosolids, algae, and potentially reusable water from wastewater and stormwater;
- Performing over 550,000 laboratory water analyzes per year to ensure compliance with the federal Clean Water Act and other state and federal environmental and safety regulations; and
- Constructing several deep tunnels and three deep surface reservoirs to avoid combined sewer overflows and storm related flooding – the most extensive system of its kind in the world – currently under construction.

Metropolitan Water Reclamation District of Greater Chicago

The MWRD is the successor to earlier sanitation districts and departments of the City of Chicago, the earliest of which was created in 1889. The district is a special purpose district created by an act of the Illinois State Legislature. Unlike the state act that authorized the creation of the Greater Dayton RTA, however, this state legislative action was uniquely designed to rationalize an essential public service in the state's largest (by far) metropolitan. The provisions of the Act were designed to integrate a proliferation of municipal and private treatment operations that, if not properly organized, would pollute drinking water for the entire area. Its current service area covers over 880 square miles and serves 5.24 million Chicago area residents and an additional 5.1 million non-resident users of sewer and stormwater services. To provide those services, the District employs almost 1,900 staff. Because of its extensive service area, its links to safe drinking water for the United States' third largest city, and its close ties to individual health and safety, it is a very powerful agency that has been given broad authority to perform its charge and deliver its services.

Governing Body

The governing body of the MWRD is a nine-member Board of Commissioners, each of whom is elected at large and serves a six-year overlapping term of office. Each two years, three members of the Board are elected. Following each election cycle, the Board elects its President, Vice-President, and the Chairman of its Committee on Finance. Board members receive a part-time salary for their service. One of the key functions of the Board is to oversee the finances of the organization.

Executive Management

Because of the size and scope of its operations and physical infrastructure and assets, the MWRD has an extensive management staff. The Board of Commissioners recruits and hires an Executive Director to manage District operations. The Board also appoints a management level Chief Financial Officer/Treasurer, who reports to the Board. The Executive Director appoints another eight department heads in charge of: Engineering, Maintenance and Operations, Monitoring and Research, Human Resources, Information Technology, Procurement and Materials Management, Law, and Finance. Additional management services that do not have department level status but report directly to the Executive Director include Management and Budget; Public Affairs, Diversity/Affirmative Action; and Administrative Services (which are grouped together in a General Administration section of the organization).

Legal and Institutional Arrangements

Coordination with Other Urban Agencies and Services

Because the MWRD treats sanitary and storm water flows from 129 communities (including the City of Chicago) its primary connections with other organizations are with the local sewer authorities whose local sewer collection lines must connect to the large MWRD sewer/stormwater mains and collectors. Because the effluent it collects comes after passing through Chicago area homes, businesses, stores, and civic buildings, the MWRD generally does not have a significant direct operating connection with the Chicago Bureau of Water Supply.

Nature and Extent of 'Ring-Fencing' of District

As an independent, special purpose district, the MWRD's very large budget is designed to be 'ring-fenced' from other funds in any of the 129 Cook County communities that it serves. The Districts' collected revenues may only be used in support of its services and are not available for other purposes or for use by any of the local governments it serves.

Oversight, Autonomy, and Accountability

The very large size of the District budget (US\$ 1.2 billion annually) creates several complex challenges. The first is that the very size and complexity of the budget makes it very difficult for non-experts to understand or monitor. The second is that a large budget creates a large 'target' for corruption – i.e. a sense that small losses from a large budget will not be easy to find or notice.

The District has taken extensive steps to meet these challenges and appears to have been relatively successful. The Government Finance Officers Association (GFOA) of the United States and Canada has awarded the District a Distinguished Budget Presentation Award for 34 consecutive years and a Certificate of Achievement for Excellence in Financial Reporting for 43 consecutive years – putting the District in the top 2% of governmental organizations that have long track records of consecutive GFOA awards. Various sub-funds of the MWRD (such as the Retirement Fund) have also received consecutive awards for 11 and 25 years.

Annual and Other Reports

The primary annual financial report of the District is its CAFR. The CAFR is designed to meet US government accounting standards, as documented in the Codification of Governmental Accounting and Financial

Reporting Standards, which is updated annually. Additional biannual reports document the financial status of the District's retirement funds.

Annual reports required by the State of Illinois document inflows, outflows, and balances for each District fund. They also document total payments to each vendor doing with the District and total payroll of each employee of the District (by name, but only categorized by range of income, not specific income) for the year.

In addition, the MWRD issues and makes available to the public monthly or annual reports on the performance of its water reclamation plants and the types and levels of pollutants treated by those plants. The reports also document the quality of water released from those plants and compliance with state and federal water quality regulations.

How is the Strategic Direction of the District Established and Reviewed?

A 5-year strategic Plan is developed jointly by the Board of Commissioners and executive management team. The 2015-2021 plan is near expiration, and a follow-on strategic plan is currently being developed through a four-month process. For that purpose, the MWRD has appointed an internal Steering Committee made up of two Commissioners, the Executive Director, Treasurer, General Counsel, Director of Engineering, and Director of Operations and Maintenance. Two private consulting firms are supporting and facilitating the process on a pro bono basis. A draft of the new Strategic Plan was recently posted on the MWRD website, together with an e-mail link and a mailing address and an invitation for the public to comment on the draft.

How and to Whom is Executive Management Authority Delegated?

See response above

Nature of Any 'Performance Compact', Performance Metrics, Links to Budgets and Funding, and Level of Autonomy

The MWRD does not publish a 'performance compact' by which its budget – or its budget for specific purposes – may be adjusted upward or downward based on its achievement or failure to achieve specific performance metrics.

The nature of the services provided by the District is such that its performance is primarily evaluated based on compliance with federal and state water quality standards for effluent released into the Chicago River and other waterways. There are numerous performance metrics related to compliance with those laws, and the District publishes numerous reports documenting compliance.

Additional performance standards could relate to reduction in the frequency of stormwater volumes and flooding that cannot be handled by the District's water treatments system (which result in 'combined sewer overflows' into Lake Michigan) or the reliability of the treatment plants themselves. The District releases public reports documenting the frequency of those events, and often compares annual performance to past years' performance, but does not compare them to established metrics.

In 2014 and 2016 the MWRD issued 'Green Bonds' offering investors an opportunity to invest in environmentally beneficial improvements as a way of generating additional capital funds for those projects. In general, investors in green bonds are sometimes willing to accept a lower interest rate than purchasers of other types of municipal bonds, simply because they want to contribute to environmental sustainability or because the investment funds come from an organization that wants to be associated with those initiatives. In some cases,

green bonds are designed so that the amount or schedule of repayments to bond purchasers are tied to the achievement of specific performance metrics. In this case, the MWRD Green Bonds are backed by the ‘full faith and credit’ of the district, meaning that there is very little chance that the bonds will not be repaid.

The MWRD Green Bonds documents include numerous performance metrics designed to measure progress in meeting environmental goals – in part to ensure bondholders that their investments are in fact being used to achieve those goals and not just to replace funds that the District could have obtained through a general bond issue. Performance metrics identified in those documents include:

- Reduction in Combined Sewer Overflows (CSOs) into rivers and waterways;
- Increase in volume of flood detention facilities designed to capture stormwater and prevent CSOs;
- Reductions in frequency of diverting river water to Lake Michigan (because stormwater flows into the rivers would otherwise result in river flooding);
- Increase in the quantity and diversity of fish species in rivers and waterways;
- Linear feet of streambank stabilized from flood damage;
- Number of structures benefitting from flood control projects;
- Dollar value of flood damages prevented;
- Tonnage of phosphorus recovered;
- Tonnage of biosolids produced;
- Reductions of energy use in reclamation plants through improved technology;
- Reduction of potable water use in water reclamation process; and
- Reductions in greenhouse gas emissions.

It is not clear to what extent the MWRD actually collects information or measures resulting in any or all of these areas.

Accounting Standards and Practices

Like most other US local governments and governmental agencies – and particularly those that receive funds from the federal government – the MWRD must apply and comply with GAAP and the federal government standards for CAFRs.

In addition, in May 2019, the District executed a contract with the Cook County government to jointly hire and share the services of an independent Inspector General. The intent of both the district and the County were to promote transparency and increase public confidence in the management of both entities’ very large and complex budgetary and financial systems. The organization’s CAFR (as a well as a separate CAFR for its retirement fund) are audited annually by a private, independent auditing firm selected by the Districts procurement office through a competitive process.

Auditing

The MWRD’s annual audit is part of the Districts CAFR document, which is posted each year on the organization’s website for public review. Separate audits are performed for the District’s general and capital funds and its retirement fund. Governmental organizations with large retirement funds are sometimes tempted to borrow from those funds in order to meet operating fund shortfalls, which creates risks for future payments to retirees, and may be the reason when separate audits of those funds are performed. The

2019 audit confirms that the agency remains in stable financial health and that the Districts various financial documents accurately reflect its financial condition in all material respects.

Finances

Budgeting

As noted above, the budget of the MWRD is very large and complex. Its overall budget for 2019 was US\$ 1.205 billion, reflecting the combined budgets of several different funds maintained by the District. Those seven funds are: Corporate (General) Fund; Capital Improvements Bond Fund; Construction Fund; Stormwater Management Fund; Retirement Fund; Bond Redemption and Interest Fund; Reserve Claims Fund. Most of these funds receive property taxes from specific sources, while others are designed to hold bond issuance revenues or bond repayment monies.

Sources and Uses of Operating Revenues

Approximately 71% of the operating budget comes from real property taxes levied on all residents of Cook County, with specific property tax mill levies required to be used for specific purposes. In addition to this major source of revenue, the District receives income from user charges (8%); a personal property replacement tax (to replace personal property taxes previously received by the district but eliminated by state legislative action – 7%); land rentals (5%); grants (4%); and miscellaneous and other income.

Operating funds are used primarily for water treatment plant operations and maintenance (34%); staff salaries and benefits (21%); stormwater management operations (18%); retirement pensions (16%); paying claims and judgments against the District (6%); and water quality monitoring and research (5%).

Sources and Uses of Capital for Infrastructure Investment

Unlike many governmental entities, the MWRD spends more each year on capital investments than on operations. In part this is because of the extremely high costs in current by the district as it continues to construct its Tunnels and Reservoirs Project (TARP), which began in the 1970s. The project involves drilling four very large tunnels (some as more than 300 feet below the surface) and building three very large surface reservoirs at strategic locations in Chicago to handle stormwater from extreme storm events that would otherwise result in CSOs. Because of these and other capital expenses, the largest source of budget revenue is the State of Illinois Revolving Loan Fund, which provides funds from revenue bond issues and general obligation bond sales, as well as loans and grant funds.

The State of Illinois also authorizes the MWRD to issue its own debt, up to a maximum of approximately US\$ 9.4 billion, and to date the District has issued US\$ 2.7 billion in bonds against that cap. The District's extensive capital projects mean that a variety of grants are received and a variety of borrowing and repayment events take place each year – either from the state or federal governments or from private investors – so capital budget account figures are always changing. Nevertheless, the MWRD has maintained an AAA bond rating from Fitch, and an AA+ bond rating from Standard and Poor's.

Fiscal Risks/Economic and Budgetary Impacts

Because the substantial majority of the District's operating funds come from property taxes, which are a very stable source of revenue, risks to operating revenue streams are limited. Nevertheless, like many large organizations, the District maintains a Reserves Claims Fund, and allocated approximately US\$ 40 million (6% of its operating budget) to fund that account in 2019.

Transparency, Citizen Participation and Other ('Upward' and 'Downward') Accountability Mechanisms

As noted above, the MWRD produces numerous reports designed to reassure the public regarding its transparency in matters related to financial integrity and compliance, public health, and the environment.

The District website also contains a link for citizens to report problems related to sanitary sewer collection or stormwater management, including odors, water pollution, blocked waterways, or other problems described by the citizen. The District convenes public comment meetings prior to the issuance of Watershed Management permits.

Although the MWRD does not appear to organize or support a citizen's advisory committee to obtain feedback on its operations, the District's public affairs staff have produced numerous videos and photographs to explain its operations to the public. Topics covered in the videos include: Stormwater Management, Water Reclamation Plants, the TARP Project, Resource Recovery, the Big Jump (a public event in which volunteers, citizens, and children jump into the Chicago River to demonstrate its safety and cleanliness), community service events at which MWRD employees have helped build playgrounds and community gardens, and MWRD hosting of youth science fair winners to a tour of a water treatment plant. Although helpful, the focus of this aspect of District appears to be educating the public about its operations and creating a positive community image, rather than engaging the public regarding possible improvements to its services or performance.

Outcomes, Including but Not Limited to

Any Available Service Delivery Indicators

As noted above, the primary measurable performance indicator relevant to the MWRD is compliance with the federal Clean Water Act and state water quality control regulations. The District regularly monitors and reports compliance with those standards (as well as occasional violations). However, the MWRD has faced at least one lawsuit from the state and federal governments for violations of those standards. A 2011 Consent Decree from the US District Court for Northern Illinois reveals that the District, while not admitting liability for violations of CSO prevention standards occurring during the construction of the TARP project, did pay civil fines to the state and federal governments and agreed to certain actions to remain in compliance with those CSO prevention standards in the future.

Any Available Infrastructure Investment Indicators

We were not able to identify any general infrastructure investment indicators published by the District or referenced by the District in any of its reports (except the Green Bond performance indicators described above). Unlike the replacement of busses or garbage trucks (whose useful life can be calculated and performance against those standards can be measured), the nature of the MWRD's extensive capital plant and the decades-long ever-expanding capital investments in the TARP project mean that its capital investments are unique and cannot be readily measured against generalized indicators. While indicators for replacement of water treatment plants probably exist, we could not find reference to those standards in MWRD reports on the operations or maintenance of those facilities.

Any available data on organizational performance and public satisfaction

See responses above.

ANALYSIS



Although differing in size, scale, services delivered, the governmental entities responsible for delivering those services, and the structure of the City government involved (City Manager versus Strong Mayor), in many ways the four case studies reflect more similarities than differences in terms of accountability and transparency.

All four case studies reflect the situations in which the government, Authority, or District providing the services:

- Maintains separate operating and capital accounts that are available to the public;
- Has a formally or informally 'ring-fenced' budget based on a dedicated source of revenue;
- Complies with GAAP accounting principles;
- Is audited – usually annually – by an independent auditor;
- Has a process for adopting a strategic plan;
- Has a process for replacing its capital equipment and facilities over time in order to provide reliable and uninterrupted service;
- Recruits and retains professional staff to deliver the service (even in the case of Chicago's Strong Mayor system); and
- Allows the public a way to offer comments about the quality and reliability of its services.

Key differences include the degree to which the Department, Authority, or District adopts or publishes service or performance benchmarks or indicators. In some cases (such as the Greater Dayton RTA) those benchmarks are established by an outside organization to which the service provider refers. In other cases, the only indicators appear to be those based on financial accountability or environmental compliance, with few ways to measure the reliability or frequency of the service against any recognized benchmark.

In addition, none of the four case studies reflected the adoption of a 'performance compact' in which better or worse performance is rewarded or penalized by changes to the agency's budget or other accountability measures. The MWRD's listing of performance indicators for its Green Bonds is a step in that direction but appears to be mostly conceptual and not used to reward or penalize District behavior.

Another key area of difference is the degree to which the Department, Authority, or District has established downward accountability to its consumers through outreach activities or meaningful ways for the public to influence the provision of the service. While both the Dayton SWM Division and the Greater Dayton RTA have taken significant steps to connect to the public by allowing them to comment on services through

interactive public sessions (rather than an on-line form) or by allowing them to request extra services (like neighborhood cleanup days), that may reflect the fact that Dayton is a smaller metropolitan area, and that both solid waste and urban transport are services in which changes to service frequency and routes are routinely made anyway.

In other words, since the Department or Authority needs to be constantly evaluating those factors anyway, it does not take much additional effort to let the public weigh in on those decisions or to request other decisions.

In contrast, both the delivery and treatment of clean water by the Chicago Bureau of Water Supply and the treatment of waste and stormwater by the WMRD are highly technical services (due to the engineering and environmental regulations involved) and services for which there are few other measures of successful performance other than reliability and compliance with public health and environmental standards. The public simply expects clean water to appear with adequate pressure and for wastewater and stormwater to disappear without odor or pollution. There are not many other factors on which many members of the public would likely request changes in performance, and the ability of the Bureau or MWRD to respond with service changes would be significantly limited by the economic and physical realities of water engineering and the need to keep in daily compliance with federal and state water quality and environmental regulations. It may simply be less necessary to have direct downward accountability to and connections with citizens for those types of urban services where most citizens desire is just that the service provider 'make it happen.'

In addition, for very basic services (water, wastewater/stormwater, and solid waste), the continued quality and responsiveness of the services is probably supported more by social norms, the power of the press, and professional reputation. Since everyone expects clean, safe water to be delivered, dirty water to be taken away, waste to be disposed of safely, and federal environmental standards to be met, failures to meet those standard (as recently occurred with Flint, Michigan's water supply) are immediately noticeable. Complaints are then made to elected or appointed officials in charge of the service and/or to news reporting organizations who cover the service failure. Since compliance with these basic service standards is so universal in most of the US, failures quickly call for investigations, explanations, and corrective action. The attitude is "Everyone else manages to provide this service well, so why can't you? Fix the problem."

In addition, mid-level and high-level service managers are often motivated by the need to maintain their professional reputations so that they can obtain a more responsible or higher paying position in the future. Service failures taint those reputations, so managers act proactively to ensure that systems for continuous service delivery and environmental/public health compliance are actually working to minimize the risks of failures that would compromise their opportunities for advancement.

OPTIONS AND RECOMMENDATIONS



Options

In general, each of the four institutional mechanisms used to provide the four urban services reviewed in this report is appropriate for the delivery of that service. In the case of Dayton, provision of solid waste services by a City department, with the option for service outside the City boundaries through contracts with other entities, generally aligns the governance and service delivery boundaries.

One option for the provision of urban solid waste services would be a Special District whose boundaries and revenue collecting powers might extend beyond the City boundaries to include nearby unincorporated areas that also generate significant amounts of solid waste. That option would create a system similar to the one Dayton and Montgomery County use for the provision of urban transport services – with an independently defined service area and revenue base. However, Dayton’s RTA was created under special purpose state legislation that authorizes the Special District structure for transport services. No such parallel legislation exists to create a Special District for solid waste services.

The review of Chicago’s water supply and wastewater collection and treatment services reveals an interesting difference in approach. While water supply is provided through a powerful City department under strong Mayoral leadership, and then through contracts to over 100 cities and local governments, wastewater treatment is provided through a Special District grounded in unique special purpose state legislation that includes those 100 plus cities and local governments in its governance structure. That difference is particularly interesting in light of the fact that both services manage the same resource (water) on its way into and out of the public consumption cycle.

Rather than having the City of Chicago execute and manage over 100 contracts with other local governments, one option would be for the Chicago water supply system to be provided through a Special District with a broad geographical boundary similar to that for the MWRD. That option would allow the surrounding cities and local governments that rely on Chicago for their drinking water to participate more directly in governance of water supply delivery. It is unclear why that alternative was not selected, but one possibility is that there is only one source of water for the Chicago area – Lake Michigan – and the provision of drinking water is a relatively straightforward process (just treating relatively clean lake water to ensure that it meets federal water quality standards). Once Chicago had developed the capability to do that in a large city, incremental expansion of the system to accommodate additional water treatment volume in order to sell water to the surrounding area may have been less expensive to the surrounding communities than having to replicate water collection and treatment plants in each community. Probably for that reason, central city collection and treatment of water and contracts to sell treated water to surrounding cities is quite common in the United States.

In contrast, the MWRD has to provide two complex services with serious implications for public health and safety; it must collect and treat both sanitary sewer flows and stormwater flows. Because it contains serious contaminants that can spread infectious diseases, the treatment of sanitary sewage is highly regulated by the federal government (and sometimes by state governments), and often requires construction, upgrading, and regular maintenance of complex aerobic and anaerobic treatment systems and the proper disposal of pollutants removed from the water. Similarly, because Chicago is located on relatively flat land, ensuring that stormwater with urban pollutants flows away from Lake Michigan and into other west-flowing rivers, and maintaining positive westward flows in those rivers, is very important, and requires the construction of enormous stormwater catchment reservoirs distributed throughout the area (not just in the City of Chicago). Because the required infrastructure is one of the most expensive public works projects undertaken in the United States, and because continued compliance with federal water quality standards and flood protection standards must be maintained while the TARP system is being constructed, it is likely that the Illinois state legislature decided the service delivery, governance, financing, and accountability for the work should be shared over the benefitting Chicago region rather than being managed by the City of Chicago. For all of these reasons, there is no good option for provision of wastewater and stormwater treatment other than a special purpose Special District such as the MWRD.

Recommendations

Public Engagement and Accountability

Although each of the four services provided by the Dayton and Chicago have a public accountability system, those systems are generally informal, and in some cases unstructured. In most cases the systems for public comment or complaint about the scope, quality, or reliability of the service is through a comment feature on the service delivery organization's website. Although web-based comment and complaint systems are very efficient, they are also less usable or effective in getting feedback from those households without computers or the ability to use them. In some cases, such as the MWRD's program of tours, videos, and outreach, the system seems to be oriented towards promotion of the agency's image rather than seeking ideas and opportunities for improvement. In other cases, such as Dayton's "On-Time Service Promise", the ability to get a refund for service delays is time-consuming, cumbersome, and seldom used.

To its credit, the City of Dayton does conduct regular surveys of service quality, and both the Department and the RTA use informal meeting with key service consumers to identify ways to improve their services. As in many US cities, officials related to these services in Dayton stated that informal feedback mechanisms – generally periodic or on-request meetings with elected or appointed officials – were more useful for identifying potential service improvements than formal feedback structures.

To some degree the lack of explicit engagement programs or performance compacts in both Dayton and Chicago is related to the highly regulated nature of the services being provided. In the case of solid waste, drinking water, and wastewater/stormwater treatment, the basic measures of performance are reliability and compliance with fairly strict regulations that are regularly enforced through fines and penalties. It is difficult to envision what additional relevant information the City of Chicago could receive from formalized engagement procedures when the water supply is both reliable and in compliance with drinking water standards. Similarly, the MWRD maintains web-based complaint forms for localized flooding and sanitary sewer backups and odors, and it is unlikely that a more formalized engagement process would produce additional relevant information. Either the failures are reported by telephone or through the web-based forms, or they are not likely to be reported. It is very unlikely they will be remembered or reported with enough detail to inform MWRD operations at a periodic public comment event sometime later. It is also

unlikely that a more structured engagement process would provide meaningful input into improvements to the multi-billion dollars investments in complex infrastructure necessary to complete the TARP project.

In the case of the two reviewed services in Dayton, however, more formalized public engagement structures might result in additional service improvements. That is because waste collection routes and frequency, as well as the types of items collected (general waste, large and bulky items like furniture, hazardous liquids, yard waste, or construction waste) can all be adjusted to meet changing public needs relatively easily. Similarly, urban transport routes can be changed relatively easily as different areas in and around Dayton grow, as new employers locate in the area (or failed businesses leave the area), and as new schools and public facilities are constructed. More regular communication, and more structured opportunities to offer opinions about possible service changes, could easily result in new information about service improvements that would not be uncovered through more broad-based surveys about the adequacy of current services.

Transparency

All four service delivery organizations are subject to quite a rigorous budgeting, auditing, and reporting requirements related to their respective services. In most cases, these are required by either state or federal government requirements (or both), that include penalties or required remedial action when shortcomings are uncovered. Although almost all of these reports are required to be made public, very few members of the public in fact read or understand the resulting reports; they are generally of more use to appointed or elected officials in the participating governments who can use them to ask further questions or suggest changes to address those shortcomings.

One exception is the Dayton RTA's participation in the American Bus Benchmarking Group, which provides a confidential forum in which operators of transport services in medium-sized US cities can compare performance and share ideas for service improvements. While participation in a confidential forum probably results in more candid conversations among its members regarding individual weaknesses or service failures, there would also be transparency benefits in sharing that information with the public. At present it appears that neither the benchmarks by which these peer organizations compare themselves nor their performance relative to their peers against those benchmarks are made public. Making the benchmarks and/or Dayton RTA's performance against those benchmarks public could result in public pressure to improve areas of weakness or ideas for improvement that might not have occurred to the RTA on its own.

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Volume 2D
Assessing COVID-19 Pandemic Response by
Local Governments in India:
Case of Three Cities

Final Report Including Recommendations



Submitted to:
The World Bank (IBRD)

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EXECUTIVE SUMMARY



This study assesses the preparedness and the response of local governments in dealing with the COVID-19 pandemic of which India has witnessed two waves, the first in 2020 and the second in 2021. It focuses on local governments in the three cities of Ahmedabad, Chennai and Amritsar to identify strengths, weaknesses and gaps in the existing institutional capacity and the challenges faced by the three local governments in dealing with the pandemic. The findings of this study bear relevance not only for pandemic but also disasters in general.

The pandemic underscores the need to empower local governments in general and even during the times of health disasters such as the current pandemic

Given their natural proximity to the citizens, local governments are uniquely positioned to co-ordinate a timely and effective response to any disasters within their jurisdiction. However, the legal framework for disaster management in India identifies the district administration as the nodal agency and allots a subordinate role to local governments. Using the provisions of the Epidemic Diseases Act, 1897 as a workaround, the state governments were able to allot AMC and Greater Chennai Corporation (GCC) with a leading role in managing the pandemic within their cities. This was also possible since these local governments are relatively more empowered in matters of policy and finance than the local governments in Punjab where it was the district administration that led the response and the local government played a subordinate role (as in case of MCA).

As India increasingly urbanizes, the percentage of urban population in the districts will increase significantly and hence there is a larger population will be under the control of urban local governments. Hence, there is a need to amend the Disaster Management Act, 2005 to position urban local governments on an equal footing with district disaster management authorities in terms of their responsibilities and their powers. This needs to be backed with greater autonomy (especially in matters of policy, expenditure and urban planning) to empower local governments for better disaster response in urban areas.

Existing planning framework for disaster management at city level/district level is focused towards responsiveness and not preparedness as well as fails to recognize epidemics as disaster

Local governments in India are often not responsible for urban planning, as is the case of GCC and MCA. This is compounded by a practice whereby the purpose of urban planning is limited to regulating land-use rather

than serving as strategic guidance for urban development. This coupled has resulted in urban masterplans which do not integrate disaster management as a strategic priority. Thus, there is little done at planning level to be better prepared for any future disasters. City-level disaster management plans, which are also outdated, do not address disaster preparedness and fail to recognize health disasters as a threat.

Urban planning is a critical function which must vest with the local governments. Furthermore, there is a need to evolve urban planning into an exercise for building consensus on future growth patterns and planning investments to support the same. This needs to be supported by state level policy guidance and technical assistance to enable local government to holistically plan for mitigating and responding to disasters.

Local governments need to be institutionally strengthened to manage epidemics and other disasters

GCC's COVID-19 response involved a restructuring of its field teams to break departmental silos. A key role in coordinating the health sector response and building capacity for pandemic management was played by the Epidemic Control Cell of AMC's health department. These two cases underline the importance of an organizational structure which reflects the need for inter-departmental co-ordination and a dedicated focus when it comes to managing epidemics and other disasters.

A dedicated disaster management unit could be established in the local governments which would be responsible for planning, IEC, ensuring disaster preparedness and coordinating disaster response. In addition, an epidemic prevention and control cell could be set up under the health department of the local government to ensure focus on tracking disease outbreak, building expertise and advising on health sector response in the event of an epidemic. These units would also aid in building an institutional memory for learnings from COVID-19 and other disasters.

Financing framework at the local government level is needed to make disaster response more effective

Responding to disasters poses an additional financial burden on local governments, whose resources may be committed for other essential services. Presently, this financing requirement is met through ad hoc transfers from the state government's budget and the state disaster relief fund. Such an arrangement bears the risk of delays or lack of clarity on the extent of resources available, particularly in cases where the disaster is localized to the city.

A city disaster management fund could be set up, in line with the state disaster relief fund (SDRF), which could be financed partly through contributions from the state government and partly by the local government itself. Particularly in the event of localized disasters, this would allow the local government easy access to emergency funds.

INTRODUCTION



The COVID-19 pandemic, which emerged in late 2019, has now affected over 200 countries including India. By the end of 2020, there were about 10.3 million cases of COVID-19 in India and nearly 150,000 deaths due to the disease. COVID-19 in India reached its first peak on September 19, 2020; with 1,010,954 active cases followed by second peak on May 7, 2021; with 3,719,192 active cases.

This study assesses the preparedness of local governments in dealing with the pandemic. It focuses on local governments in the three cities of Ahmedabad, Chennai and Amritsar to identify strengths, weaknesses and gaps in the existing institutional capacity and the challenges faced by the three local governments in dealing with the pandemic.

The preparedness of three cities was mapped based on assessment of existing relevant legal and institutional framework. The responsiveness was mapped based on actions taken by the local governments during the pandemic. The assessment was made using data collected from publicly available information as well as from consultations with the concerned departments of the local governments.

The report concludes with findings derived from the study which are not just relevant to the COVID-19 pandemic response, but also for overall disaster management mechanisms and emergency response systems established by local governments.

COVID-19 timeline and key statistics

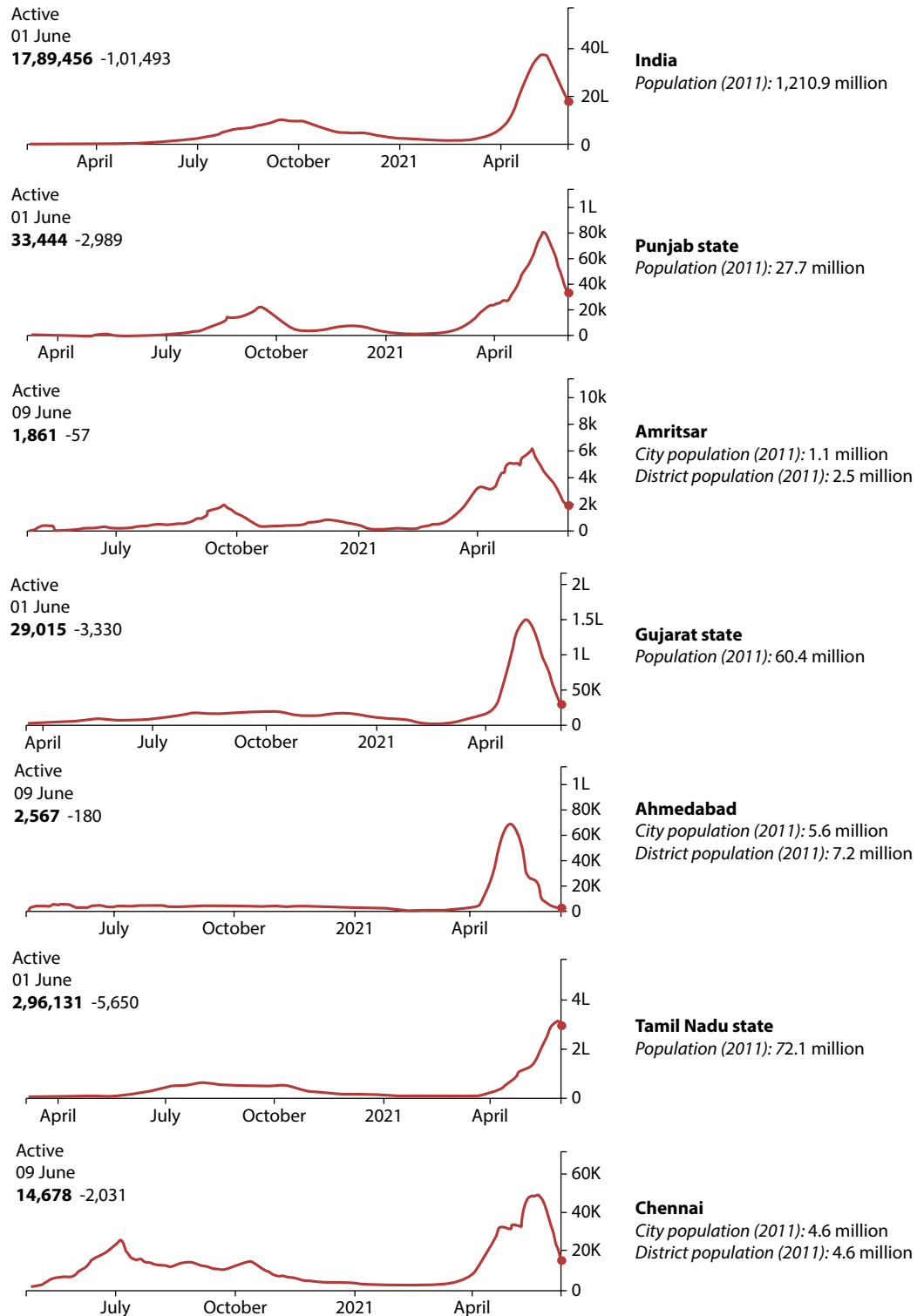
In the beginning of March 2020, COVID-19 infections were limited to the Thrissur and Alappuzha districts in Kerala and a case each in Delhi and Telangana. By the end of May 2020, all states and union territories recorded infections, except for Daman and Diu, and Lakshadweep.¹

Furthermore, there was distinct variation in the severity and manner in which the pandemic unfolded over time. During the first wave of COVID-19 (2020), in Amritsar, the timing of peak active caseload was nearly synchronized (with less than a month's lead) with that at the state and national levels. On the other hand, in Ahmedabad and Chennai, the pandemic peaked much earlier, not only when the peak was observed by the nation, but also by their respective states. Whereas, during the second wave of COVID-19, the peak active caseload in all the three cities were nearly synchronized with that at the state and national levels.

¹ National Disaster Management Authority (2020); COVID-19 Impacts and Responses: The Indian Experience, January–May 2020, NDMA, India.

During the second wave of the pandemic (2021), the timing of peak active case load in Ahmedabad, Chennai and Amritsar was nearly synchronized with that at respective state and national level.

FIGURE 1 TREND OF ACTIVE COVID-19 CASES FROM MARCH 2020 UNTIL JUNE 2021 AT THE DISTRICT, STATE AND NATIONAL LEVELS



Source: Covid19 india. org, Census 2011.

The number of COVID-19 cases and COVID-19 fatalities for Ahmedabad, Chennai and Amritsar have varied substantially in 2020 as compared to 2021. The number of COVID-19 cases active during the second peak recorded in May 2021 in Ahmedabad were 12 times higher than the first peak recorded in May 2020, i.e. 62,749 more cases were recorded in second peak as compared to cases in the first peak.

The number of COVID-19 cases active during the second peak recorded in May 2021 in Chennai were about twice in number as compared to the first peak recorded in July 2020, i.e. 24,344 more cases were recorded in second peak as compared to cases in the first peak.

The number of COVID-19 cases active during the second peak recorded in May 2021 in Amritsar were about thrice in number as compared to the first peak recorded in September 2020, i.e. 4,263 more cases were recorded in second peak as compared to cases in the first peak.

The test positivity rate (COVID-19 tests that reflects positive results as against total tests conducted) for Ahmedabad in 2020 was 2.4% as against the rate of Chennai which was 9.5% in 2020.

The case mortality rate (number of deaths due to COVID-19 as against total COVID-19 cases registered) for Ahmedabad dropped from 3.9% in 2020 to 1% in 2021. In Chennai the case mortality rate reduced from 1.8% in 2020 to 1.1% in 2020 and in Amritsar the case mortality rate reduced from 3.8% to 2.8%.

The case recovery rate (number of patients recovered from COVID-19 as against total COVID-19 cases registered) in Ahmedabad improved from 91.1% in 2020 to 98.2% in 2021, whereas the case recovery rate for Chennai have dropped from about 96.9% in 2020 to about 90% in 2021. The case recovery rate in Amritsar also dropped from 93.6% in 2020 to 88.5% in 2021.

It can be induced from above statistics that:

- Number of active cases at peak were highest in Chennai during first wave, but they were highest in Ahmedabad during the 2nd wave. In Ahmedabad the case recovery rate has improved from 91.1% in 2020 to 98.2% in 2021. Cases and deaths per million population cumulatively were highest in Chennai during both the waves;
- For Chennai, number of cases active during peak in 2021 were twice in number as compared to peak in 2020 but the case recovery rate dropped from 96.9% in 2020 to 90.1% in 2021. It is to be noted that during first wave in 2020, Chennai reported highest number of cases as well as a highest case recovery rate compared to Ahmedabad and Amritsar;
- In Ahmedabad number of active cases during peak in 2021 were twelve times as compared to the peak in 2020 but the case recovery rate was improved from 91.1% in 2020 to 98.2% in 2021;
- In Amritsar, the number of cases active during peak in 2021 were thrice in number as compared to peak in 2020 but the case recovery rate dropped from 93.6% in 2020 to 88.5% in 2021. However, the total number of COVID-19 cases handled by Amritsar were significantly lower than those dealt by Ahmedabad and Chennai; and
- Case mortality rate has dropped in all the three cities from wave 1 to wave 2, but the drop in Ahmedabad is remarkable, which reduced from 3.9% to 0.6%.

The following table gives a snapshot of the caseload and fatalities for all three cities:

TABLE 1 DISTRICT-LEVEL COVID-19 STATISTICS

	Ahmedabad, Gujarat	Chennai, Tamil Nadu	Amritsar, Punjab
Population (2011)	72,14,225	71,00,000	24,90,656
Phase-1 (March 2020 – January 2021)			
Cases (cumulative)	57,792	2,25,758	14,528
Cases per million (cumulative)	8,011	31,797	5,833
Deaths (cumulative)	2,251	4,011	556
Deaths per million (cumulative)	312	565	223
Number of active cases at peak-1	5,681 (May 25, 2020)	24,894 (July 5, 2020)	1,882 (Sept 22, 2020)
Test positivity rate	2.4%	9.5%	NA
Case mortality rate	3.9%	1.8%	3.8%
Case recovery rate	91.1%	96.9%	93.6%
Phase-2 (January 2021 - 1st June 2021)			
Cases (cumulative)	177,818	2,81,179	30,296
Cases per million (cumulative)	24,648	39,602	12,163
Deaths (cumulative)	1093	3,134	905
Deaths per million (cumulative)	152	441	363
Number of active cases at peak-2	68,430 (May 3, 2021)	49,236 (May 22, 2021)	6145 (May 13, 2021)
Case mortality rate	0.6%	1.1%	2.9%
Case recovery rate	98.2%	90.1%	88.5%

Source: covid19india.org

ROLES AND RESPONSIBILITIES OF STAKEHOLDERS



Overview

Under the Indian constitution, public order and public health are State subjects, while social security and social insurance and prevention of the spread of diseases between states fall under the Concurrent list. Consequently, the central and state governments played a large role in managing the pandemic.

As per the 73rd and 74th Constitutional Amendment in 1993 (which gave constitutional status to the rural and urban local governments), 'Public Health' was included in the 11th and 12th schedules, listing the functions to be carried out by them.

The Ministry of Home Affairs (MHA) and the Ministry of Health and Family Welfare (MoHFW) have been the two key central government ministries tasked with managing the COVID-19 pandemic. The MoHFW is responsible for coordinating the health sector response through the Indian Council of Medical Research (ICMR) and Department of Health Research which fall under it. One of the key, early actions by the central government was the declaration of a nation-wide lockdown on March 24, 2020. This was imposed by the MHA and the National Disaster Management Authority (NDMA) under the Disaster Management Act, 2005. The NDMA is assisted by a National Executive Committee (NEC) which has also been set up under the Disaster Management Act, 2005 and the National Institute of Disaster Management (NIDM). The NEC is chaired by the Union Home Secretary and comprises of secretary-level officers from other ministries. The mandate of NEC is to serve as a monitoring and coordinating body for disaster management. NIDM (erstwhile National Centre for Disaster Management) was set up in 1995. Under the Disaster Management Act, 2005 it is tasked with building disaster management capacity by undertaking training, research, documentation and development of a national-level database for disaster management.

In line with the organizations at the national level, the State Disaster Management Authority (SDMA) and the Department of Health and Family Welfare were tasked with managing COVID-19 at the state level. The state disaster management authority is responsible for issues state-level orders on lockdown and containment. Health sector response at the state level is undertaken by the respective departments of health and family welfare. State governments also formed inter-departmental task forces for coordinating response to the pandemic.

The role played by the central and state governments covers formulation of policies and strategies, international and inter-city travel restrictions, ensuring adequate production of medical and other resources, conducting and disseminating medical research, formulating testing and treatment protocols, rolling out welfare schemes and stimulus packages to mitigate the socio-economic impact, mobilizing financial resources, and international and inter-governmental co-ordination.

Section 11.1.5 in the annexure documents various initiatives undertaken by the central and state governments to contain disease spread, safeguarding migrant workers, ensuring available of essential medical resources and such.

In accordance with the DM Act 2005, at the local level, the response to the pandemic was either led by the district administration or the local government with the support of other government departments, particularly the police. The district administration is empowered under the Disaster Management Act, 2005 to act the local nodal agency in the event of a disaster. It is empowered under the Disaster Management Act, to undertake containment measures, requisition of private resources and issue directions to other government departments. The police department played an important role in implementing the lockdown and containment measures.

Role of local governments

The local governments in the three cities of Ahmedabad, Amritsar and Chennai are differently structured and their role in managing the pandemic has also differed on account of the general level of empowerment that the local governments have been accorded by their respective state governments.

Organizational structure of local governments for managing the pandemic

Most of the activities assigned to the local governments for managing COVID-19 have been performed through their respective health departments, as shown in Table 5, since managing disease outbreaks falls within their mandate. The role played by the health department of MCA is relatively limited since the local government itself was tasked with a smaller role for COVID-19 and it does not provide any healthcare services.

TABLE 2 COVID-19 RESPONSIBILITIES WITHIN LOCAL GOVERNMENTS

Activities	AMC	GCC	MCA
Surveillance and testing	Health Department	Health Department, Zonal office	NA
Quarantine of infected persons at home or at institutional centers	Health Department	Health Department, Zonal office	Health Department
Delineation of containment zones	Health Department	Health Department, Zonal office	NA
Healthcare	Health Department	Health Department	NA
IEC and awareness	Health Department	Health Department	NA
Disinfection	Health Department	Health Department	Health Department
Disposal of infected waste and corpses	Health Department, SWM Department	Health Department	Health Department
Access to essentials	Zonal office	Health Department, Zonal office	Health Department, Zonal office

Source: Consultations with key officials, media coverage.

AMC, unlike GCC or MCA, has a separate SWM (SWM) department and consequently its health department has a more focused role. AMC's health department also has a dedicated epidemic prevention cell. The cell is headed by an Epidemic Officer who reports to the Medical Officer of Health and the concerned Deputy Commissioner of AMC on COVID-19 related activities within its purview.

BOX 1: EPIDEMIC CELL, AMC

The cell is situated within the AMC's health department since two decades, and is responsible for:

- Collecting epidemic-related data from government and private hospitals, urban health centers (UHCs), community health centers (CHCs), and maternity homes, and preparing preventive action plans;
- Surveying epidemic-prone areas and testing water samples to determine preventive actions;
- Operating mobile medical vans to provide treatment to patients in epidemic-prone areas; and
- Anchoring IEC activities for awareness concerning water- and vector-borne diseases.

GCC's health department on the other hand has a wide mandate which not only include healthcare services and SWM but also the distribution of subsidized food through 'Amma' canteens². GCC's health department also has a dedicated IEC cell.

COVID-19 responsibilities were handled by augmenting staff strength through contract-based hiring, outsourcing activities to private firms, and engaging volunteers such as medical students. For example, GCC hired temporary staff, including focus group volunteers, field survey workers, and analysts for maintaining a COVID-19 dashboard. It should be noted that while local governments' health departments have medical officers, unlike the district health departments, there are no epidemiologists.

Municipal zonal offices, too, were engaged for COVID-19 field-work

In addition to the health department, the zonal offices of the local governments were also engaged. In Amritsar and Ahmedabad, the engineering staff in zonal offices performed non-medical tasks related to COVID-19 as seen in Table 5. The GCC engaged its zonal staff to support health sector workers in also medical duties under COVID-19 in the month of June when the active cases in Chennai were at their peak.

While inter-departmental response teams were formed in GCC during COVID-19 to ensure coordination between health department and other municipal staff, in AMC, the Epidemic Cell traditionally has been coordinating entity for managing health related disasters.

BOX 2: MICRO PLANNING AT GCC FOR COVID-19

In GCC, the health department largely handled the responsibility of isolating COVID-19 patients, admitting them to healthcare facilities, contact tracing, supervising staff conducting surveillance surveys, and barricading containment zones.

Under the micro-planning approach adopted by GCC, 200 inter-departmental response teams were formed in the city to promote better coordination between the health department and other municipal staff. The response teams, in addition to the health officer, sanitary inspector, and conservancy inspector, also involved the respective assistants, junior engineers, tax collectors, and license inspectors. These teams are headed by respective assistants or junior engineers.

2 Operated as part of 'Amma Unavagam', Tamil Nadu government's food subsidization program.

AMC and GCC, which are more empowered, have played a key role in managing COVID-19 as compared to MCA

Amongst the local governments of the three cities that this study focuses on, AMC and Greater Chennai Corporation (GCC) have traditionally been more empowered through their respective Municipal Corporation Acts. They have had a larger mandate in managing the pandemic which included providing healthcare services through municipal hospitals and healthcare centers. These two local governments have been tasked with the overall management of the pandemic in their respective cities as nodal agencies under the Epidemics Act 1897 issued by the state government. This includes direct management of a number of activities, including surveillance, quarantine, healthcare provision, creating awareness, disinfection and distribution of essentials. As the nodal agency, they have also been tasked with coordinating with the local police, which in turn, is responsible for implementing social distancing.

In contrast, the MCA has traditionally been less autonomous. Although the Punjab Municipal Act, 1976 (PM Act) identifies provision of healthcare services as a municipal responsibility, MCA does not manage any hospitals or healthcare centers. This is also reflected in the event of COVID-19 where its contribution was relatively limited to enforcement of home quarantine, disinfection and distribution of essentials under the guidance of the district administration. This contrast is seen in Table 2 which shows a much larger role played by AMC and GCC in their respective cities.

TABLE 3 COVID-19 RESPONSIBILITIES AT THE LOCAL LEVEL

Activities	Ahmedabad	Chennai	Amritsar
Overall co-ordination	Local government	Local government	District administration
Surveillance and testing	Local government	Local government	District health department
Quarantine of infected persons at home or at institutional centers	Local government	Local government	Local government
Delineation of containment zones	Local government	Local government	District administration
Implementing social distancing	Police	Police	Police
Healthcare	Local government	Local government	District health department
IEC and awareness	Local government	Local government	District administration
Disinfection	Local government	Local government	Local government
Disposal of infected waste and corpses	Local government	Local government	Local government
Access to essentials	Local government	Local government	Local government

Source: Consultations with key officials, media coverage and government notifications.

Other initiatives taken and challenges faced by local governments in managing COVID-19 pandemic

Key innovations by the three local governments in managing the pandemic have been documented in the table that follows. On one hand, local governments engaged various stakeholders and leveraged technology to reinforce their response, while faced with resource constraints. On the other hand, local governments also adopted a citizen-centric approach in testing, healthcare and containment to ensure the support of the local community in managing the pandemic.

BOX 3: KEY INITIATIVES TAKEN UP LOCAL GOVERNMENTS DURING COVID-19

Technology initiatives by local governments:

- AMC introduced a GPS-enabled mobile app to monitor home quarantined patients;
- GCC rolled out a tele-counselling app for people under home isolation named “Portea”, and a COVID-19 monitoring app for tracking and providing information on infection hotspots;
- MCA has set up an online portal to access information regarding medical and grocery stores based on their location; and
- Drones have been deployed in Chennai and Ahmedabad to disinfect congested areas.

AMC’s citizen-centric oriented approach in pandemic management:

- The “Voluntary Family Quarantine” initiative introduced in March, under which AMC provided all amenities free of cost to the family that decides on joining the person with travel history in isolation at their residences;
- The Vadil Sukhakari Seva Program for residents with comorbid conditions and senior citizens for prevention against COVID-19 was implemented at the end of October; under this program, three paramedical workers check the health condition of targets by visiting them every 15 days; it includes checking BP, oxygen levels, pulse rate and blood sugar levels; this program had 100 teams covering 2,000 people every day; a phone-based app was developed along with GPS tracking to track their health; volunteers supply zinc and vitamin C tablets, and Ayurvedic and Homeopathic prophylactics free of cost to senior citizens to boost their immunity; based on a household survey in 21 wards with greater incidence of COVID-19, AMC identified 30,000 senior citizens as beneficiaries under this scheme;
- Dhanvantri Rathis — medical vans that have been converted into mobile clinics for on-field medical testing and diagnosis in May were introduced; each van comprises a doctor, nurse and paramedic; apart from the COVID rapid antigen test, it also conducts tests for malaria and dengue; as of July 2020, 120 such vehicles have been operating; and
- Under the “104 facility” about 150 vehicles on contract have been deployed for testing and regular checkup of residents who are unable to or cannot go out for tests and COVID-19 checkups such as elderly patients and pregnant women.

Role of local governments in addressing needs of migrant laborers

With advent of nation-wide lockdown in 2020, the migrant laborers were stranded in the cities they were employed in. The national government released guidelines for interstate movement of workers, students, pilgrims and other stranded people on 29th April 2020³ for the state governments. The state governments in accordance with the guidelines released by the central government rolled out registration process for migrant workers and other instructions for their smooth commute to their home towns. Modes of transportation such as intra-state buses, inter-state buses as well as railways and airways being under purview of the state and the central government respectively, the transportation arrangements for migrant laborers were also taken care of by the state governments in accordance with central government guidelines. The state governments were supported by respective district administrations in the registration and arrangement of transportation for migrant laborers.

The migrant laborers reporting to the COVID-19 test centers within local governments and the laborers reported by the contractors to the local governments were provided with these facilities such as temporary shelters, food, essentials as well as medical care within temporary shelters. However, the local governments were not involved in either registration or arrangement of transportation for migrant laborers.

Challenges faced by local governments in managing COVID-19

In the absence of pre-established protocols or toolkits, some of these responses have evolved over the course of the year based on lessons during the COVID-19 pandemic and the challenges faced in managing it.

3 <https://www.timesnownews.com/india/article/migrant-workers-registration-form-heres-a-state-wise-list/588409>

For instance, AMC rolled out a program to safeguard senior citizens by leveraging the election register, after about nine months into the pandemic. GCC adopted a novel practice of setting up multi-disciplinary teams through micro-level planning, after about five months of the pandemic at the peak in the city. In the absence of adequate safeguards, front line workers initiated a protest. Following this, medical insurance was provided after four months of the outbreak. In the face of such constraints, local governments have been required to not only finance their own operations, such as disinfection and SWM, but also shoulder the burden of additional responsibilities, such as supplying medicines, food and other essentials.

BOX 4: KEY CHALLENGES FACED BY LOCAL GOVERNMENTS DURING COVID-19

Safeguarding frontline workers

In Ahmedabad, doctors and paramedical staff announced strike, complaining lack of N95 masks and personal protection equipment (PPE) kits to serve COVID-19 patients when cases were on the peak in AMC limits. The complaints of medical personnel being underpaid and overworked were reported in AMC run, and private hospitals treating COVID-19 patients led to the strike of medical personnel. Meanwhile, the sanitary workers in the city went on strike demanding their inclusion in the right of compassionate jobs from AMC, in times when maintaining public health was of utmost importance. A similar issue was faced by GCC in early September, when the city had just started recovering from COVID-19 peak, as its sanitary workers went on strike complaining they were underpaid by GCC and workers contracting COVID-19 at work did not receive a relief of INR 0.2 million, as promised by GCC.

COVID-19 impact on municipal finances of MCA

MCA was able to collect only 27.5% of its target for property tax, 23.3% for advertisement tax, 4.6% for monetization of land, and 7.7% for water supply and sewerage charges by November 2020.

Inter-governmental co-ordination

In case of Ahmedabad as well as Chennai, where the local government was empowered to lead COVID-19 response, measures were also put in place to enable smooth coordination with the state government. In Ahmedabad, the Additional Chief Secretary, Forest & Environment, was assigned for oversight of the COVID-19 situation in the city on behalf of the state in early May; two state officials of the rank of Deputy Commissioner were deputed to the local government for COVID-19 management. On May 5, 2020, in Chennai, the state government formed a team of over 40 senior officials from the administration and police cadres to maintain oversight of the situation in the city. Such arrangements allowed for streamlined communication between the state government and the local governments.

BOX 5: STATE-APPOINTED COMMITTEE TO OVERSEE THE COVID-19 SITUATION IN CHENNAI

The Principal Secretary for Revenue Administration & Disaster Management at the state level has been designated as the nodal officer for overall co-ordination with four IPS officers identified to assist him. This field support team is responsible for assisting the district administrations in ensuring proper management of the containment zones, testing, contact tracing and provision of essential services.

A three-member team comprising the Principal Secretary to the Medium, Small and Micro-enterprises (MSME) department, Deputy Commissioner of Police for the Headquarters (DCP-HQ) in Greater Chennai and Former Deputy Director of Public Health has been formed to chalk out intervention strategies. In addition, 2-4 member teams of various senior state government officers have been constituted for each of the 15 zones within the GCC.

Contrastingly for Amritsar, since the response was led by the district administration, such additional measures were not required for ensuring co-ordination with the state government. However, for the role that MCA played, all the responsibilities were led by a state appointed Additional Commissioner.

LEGAL AND FINANCING FRAMEWORK FOR MANAGING THE PANDEMIC



Legal framework accorded nodal agency status to local governments in Ahmedabad and Chennai

The municipal and public health legislation provide the local governments the mandate to take up public health measures in the event of an epidemic as documented in Table 3. The Tamil Nadu government, through the state disaster management plan in 2016, assigned GCC the role of nodal agency in event of any disaster in Chennai. GCC's role as the nodal agency for responding to disasters in Chennai was reiterated through a letter issued by the Chief Secretary on March 15, 2020 which delineated the institutional framework for managing the pandemic. In the case of AMC, the local government was assigned nodal responsibility specifically for COVID-19 through a state regulation.

TABLE 4 ROLES ASSIGNED TO LOCAL GOVERNMENT UNDER THE LEGISLATIVE FRAMEWORK⁴

	Ahmedabad	Chennai	Amritsar
Overall co-ordination	<ul style="list-style-type: none"> GEDCR, 2020 	<ul style="list-style-type: none"> TNSDMP-2016 	<ul style="list-style-type: none"> NA
Surveillance and testing	<ul style="list-style-type: none"> GPMC Act, GPH Act 	<ul style="list-style-type: none"> PH Act, TNCR, 2020 	<ul style="list-style-type: none"> PM Act
Quarantine of infected person at home or at institutional centers	<ul style="list-style-type: none"> GPMC Act 	<ul style="list-style-type: none"> CCMC Act PH Act 	<ul style="list-style-type: none"> PM Act
Delineation of containment zones	<ul style="list-style-type: none"> GEDCR, 2020 	<ul style="list-style-type: none"> No provision 	<ul style="list-style-type: none"> NA
Healthcare provision	<ul style="list-style-type: none"> GPMC Act 	<ul style="list-style-type: none"> CCMC Act PH Act 	<ul style="list-style-type: none"> NA
Disinfection	<ul style="list-style-type: none"> GPMC Act 	<ul style="list-style-type: none"> CCMC Act PH Act 	<ul style="list-style-type: none"> PM Act
Disposal of infected waste and corpses	<ul style="list-style-type: none"> GPMC Act 	<ul style="list-style-type: none"> CCMC Act PH Act 	<ul style="list-style-type: none"> PM Act

⁴ Gujarat Epidemic Diseases COVID-19 Regulations 2020 (GEDCR, 2020), Gujarat Provincial Municipal Corporations Act, 1949 (GPMC Act), Gujarat Public Health Act, 2009 (GPH Act), Tamil Nadu COVID-19 Regulations 2020 (TNCR 2020), Chennai City Municipal Corporation Act 1919 (CCMC Act), Tamil Nadu Public Health Act, 1939 (TNPH Act), Punjab Municipal Act, 1911 (PM Act), Tamil Nadu State Disaster Management Plan 2016 (TNSDP 2016), CRIS analysis.

The Epidemic Diseases Act, 1897 empowers state governments to take special measures as required in the event of an epidemic. Through Gujarat Epidemic Diseases - COVID-19 Regulations 2020 passed under this law, the Gujarat government empowered municipal corporations including AMC to manage COVID-19 in the city. The original set of regulations, which were notified on March 13, 2020, only empowered the district administration to co-ordinate the pandemic response. AMC was empowered on March 20, 2020, to manage the epidemic through an addendum to these regulations issued.

The Tamil Nadu and Punjab governments also issued COVID-19 regulations under the Epidemic Act, 1987. Though these regulations, unlike that of Gujarat, do not focus on the role of local governments. In case of Punjab, MCA was tasked with responsibilities based on the directions issued by the district administration. The specific roles assigned to the three local governments through these regulations and directives is captured in Table 4.

TABLE 5 ROLES ASSIGNED TO LOCAL GOVERNMENTS UNDER COVID-19 REGULATIONS NOTIFIED BY STATE GOVERNMENTS UNDER THE EPIDEMICS ACT, 1897, AND OTHER NOTIFICATIONS

Ahmedabad	Chennai	Amritsar
<p>Detection and quarantine of persons suspected with COVID-19 infections</p> <p>Implementation of containment measures not limited to the following:</p> <ul style="list-style-type: none"> ▪ Sealing of a geographic area; ▪ Barring entry and exit of a population from containment areas; ▪ Closure of schools, offices and banning of public gatherings ▪ Banning vehicular movement in the area; ▪ Initiating active and passive surveillance of COVID-19 cases; ▪ Hospital isolation of all cases; ▪ Designating any government/ private building as a containment unit for isolation of cases; ▪ Staff of all government departments will be at disposal for discharging duty of containment measures; and ▪ Any other measure directed by the Department of Health and Family Welfare⁵ 	<p>Power and responsibility to supervise and issue periodic instructions to all departments and agencies including the following:</p> <ul style="list-style-type: none"> ▪ Extend co-ordination and support to the state health department; ▪ Form contract tracing team mobilizing personnel from revenue, police and health authorities; ▪ Monitor and ensure procurement and deployment of ordinary masks and disinfectants locally, while the state health department shall supply specialized masks; ▪ Ensuring disinfection and ensuring availability of a sanitization facility for people accessing shopping malls, theatres and markets; ▪ Disinfection of public places; ▪ Sensitization of sanitary workers with regards to personal hygiene; and ▪ Sensitizing authorities in charge of religious places to screen pilgrims and ensure disinfection⁶. <p>Receive information of people who have been suspected to be infected with COVID-19 from all hospitals through the City Health Officer⁷</p>	<p>Ensuring water supply and necessary sewage facilities in the area along with sanitization of the area⁸</p>

5. Gujarat Epidemic Diseases - COVID-19 Regulations 2020 dated March 13, 2020, and addendum dated March 20, 2020.

6. Letter No.01/CS/2020 dated May 15, 2020, issued by the Chief Secretary, Government of Tamil Nadu, on roles and responsibilities of various departments.

7. Tamil Nadu COVID-19 Regulations, 2020.

8. Order issued by the COVID-19 Control Room at the Office of District Magistrate, Amritsar, regarding assignment of tasks for implementation of containment measures.

Financing framework for managing the COVID-19 pandemic

The financial resources for dealing with emergencies are provided at the national level and state level in the form of National Disaster Relief Funds and State Disaster Relief Funds (SDRF) respectively which are funded through budgetary allocations. In addition, through funds such as PM-CARES and CM's Relief Funds the central and state governments have also been able to mobilize donations from the public.

The local governments received financial support from state governments in the form of grants to manage the pandemic. Ahmedabad and Chennai received grants to supplement their own expenditure, while Amritsar received grants specifically to cover the cost of PPE kits.

One of the sources for grants provided to local governments for COVID-19 was SDRF. The central government contributes 75% of SDRF allocation for general category states/union territories (UTs) and 90% for special category states/UTs (North East states, Sikkim, Uttarakhand, Himachal Pradesh, Jammu and Kashmir). The states receive SDRF contribution from the central government based on recommendations of the Finance Commission in two equal instalments.

It is to be noted that the SDRF funds can be utilized to provide relief to the victims of a disaster. There exists a pre-defined list of relief measures that can be funded via SDRF. Furthermore, SDRF is only expected to cover disasters in the form of cyclone, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, frost and cold waves. For disasters not included in this list, the state governments can only use up to 10% of the fund.

For COVID-19 the MHA has allowed use of SDRF funds up to 50% in September 2020. The COVID-19 relief measures that can be funded through SDRF have been added by the MHA in September 2020. These relief measures include provision for temporary accommodations, food, clothing and medical care for people in quarantine camps, cluster containment operations, sample collection, screening, contact tracing as well as procurement of essential equipment/labs.

TABLE 6 COVID-19 EXPENDITURE AND FINANCIAL ASSISTANCE BY STATE GOVERNMENTS (IN INR MILLION)

	Ahmedabad	Chennai	Amritsar
COVID-19 expenditure	6,000	7,500*	2.5
State grants for COVID-19	2,500	1,650	2
Share of state grant	41.7%	22.0%	80.0%

Source: Consultations with officials, media reports and government orders; *minimum expenditure estimated based on requests for SDRFs.

Apart from the financial assistance from the state government enlisted in Table 6, the Government of Tamil Nadu is likely to support expenditures of GCC concerning establishment, salaries and essential services.

On revenue side, the two local governments have shown a different picture.

TABLE 7 IMPACT ON REVENUE INCOME OF GCC AND AMC (FY 2019-20 AND FY 2020-21)

Revenue head	Cities					
	Ahmedabad			Chennai		
	FY 2019-20	FY 2020-21	Y-o-Y growth rate	FY 2019-20	FY 2020-21	Y-o-Y growth rate
Own source revenues (Sub-total)	23,450	23,760	1%	18,274	15,560	-15%
Property Tax	4,800	5,050	5%	10,199	5,500	-46%
Professional Tax	1,800	1,670	-7%	3,855	4,500	17%
Water and conservancy tax	3,310	3290	-1%	NA	NA	
Vehicle tax	840	880	5%	NA	NA	
Other taxes	230	240	4%	290	200	-31%
Rental, fee, user charges, sale & hire, and other income	9,420	7,280	-23%	2,700	3,920	45%
Other income	3,050	5,350	75%	1,230	1,440	17%
Grants (Sub-total)	17,980	23,270	29%	8,520	16,450	93%
Assigned revenue and devolution income	15,870	21,450	35%	6,450	6,750	5%
Devolution income – CFC	2,110	1,820	-14%	1,250	6,000	380%
Other revenue grants	NA	NA	NA	820	3700	351%

Source: Financial statements of the corporations

Note: All figures are in million INR; NA= Not Applicable

For AMC, the own source revenue income was INR 23,450 million in FY 2019-20. It grew marginally to INR 23,760 million in FY 21. Property tax revenues grew from INR 4,800 million in FY 20 to INR 5,050 million in FY 21. The negative impact was seen mainly in professional tax income - that reduced from INR 1,800 million in FY 2019-20 to INR 1,670 million in FY 2020-21, and in non-tax revenue income - which reduced from INR 9,420 million to INR 7,280 million. The grants revenue was increased from INR 17,980 million in FY 20 to INR 23,270 million in FY 21 thus showing 29% Y-o-Y increase as compared to a negative growth in the previous year. One of the contributors to this increase would be the state grants received by the local government (INR 2,500 million) for COVID-19 management.

In case of GCC, the own source revenue income reduced from INR 18,260 million in FY 20 to 15,560 million in FY 21, thus showing a negative growth rate of 15%. The reason for this negative growth is the reduced income from property tax revenues that reduced from INR 10,200 million in FY 20 to INR 5,500 million in FY 21. For GCC as well, the grants income increased from INR 8,520 million in FY 20 to INR 16,450 million in FY 21 thus showing 93% Y-o-Y growth.

The impact of Covid-19 pandemic reinforces the need to create a resilient urban financing architecture at the local government level. In line with the central and state level disaster relief funds, a disaster relief fund at the city level may be an arrangement that could be explored considering not only the duties the local governments need to perform during any disaster, but also considering the negative impacts on their own source revenue realization.

Planning framework for mitigating events such as COVID-19 pandemic

Overview

Under the national disaster management plan 2019, the NDMA had identified biological and public health emergencies as a type of disaster for which the MoHFW would be the nodal agency. In 2008, it had also prepared the National Disaster Management Guidelines for Management of Biological Disasters, 2008 guidelines which identified MoHFW as the nodal ministry for managing biological disasters such as epidemics and the NEC as responsible for overall disaster management. The guidelines cover measures for the prevention of biological disasters (such as vulnerability analysis and risk assessment, environmental management, prevention of post-disaster epidemics, and strengthening of IDSP).

TABLE 8 COMPARISON OF PROVISIONS IN THE NATIONAL AND THE STATE DISASTER MANAGEMENT PLANS

Provisions in National Disaster Management Plan (2019)	Provisions in Gujarat SDM Plan (2016-2017)	Provisions in Tamil Nadu SDM Perspective Plan (2018-2030)	Provisions in Punjab SDM Plan (2010-2011)
Maps out responsibility framework with respect to disasters such as cyclones, flood, urban flood, earthquakes, tsunami, landslides drought and biological and public health emergencies	Includes hazard, vulnerability, capacity and risk analysis for disasters such as earthquake, cyclone, fire and epidemics. The capacity analysis includes capacity assessment of human resources, equipment's and infrastructure.	It includes hazard, vulnerability and risk assessment of Tamil Nadu for drought, coastal vulnerability, sea erosion, sea incursion, Tsunami, floods, cyclones, storm surge, seismicity, heat wave, landslide, forest fire and chemical, biological, radiological, nuclear (CBRN)	It includes hazard, risk and vulnerability assessment mechanisms for disasters such as floods, droughts, cancer, accidents and fire.
Includes preparedness and response strategy in event of disaster	Maps state level, district and local level stakeholders and their roles and responsibility	Use a systems approach (Sendai framework) for disaster mitigation. It includes preventive measures and mitigation plan. It includes preparedness measures including response mechanisms and strategies outlining responsibilities of various state, district and local level stakeholders.	It includes disaster preparedness and mitigation plan that includes components such as community preparedness and administrative preparedness
Includes plan for recovery of damages caused by the disaster	It outlines preparedness measures for stakeholders and provisions for disaster response and relief	Includes an Incident Response System mapping required response activities to state, district and local stakeholders. It also includes a reconstruction, rehabilitation and recovery program	Maps institutional mechanism and response management arrangements as part of response plan

Provisions in National Disaster Management Plan (2019)	Provisions in Gujarat SDM Plan (2016-2017)	Provisions in Tamil Nadu SDM Perspective Plan (2018-2030)	Provisions in Punjab SDM Plan (2010-2011)
Maps capacity development themes and training requirements	It maps out funding arrangements for disaster management and related projects as well as provides an outline for regular maintenance and updating of plan	Identifies the agencies for capacity building at state, district and local/community level.	Maps financing arrangements available for mitigating disasters.
Maps financial arrangements for relief during disasters through funds such as National Disaster Response Fund, State Disaster Response Fund, National Disaster Mitigation funds	Includes action plans for earthquakes, cyclones, tsunami, floods, nuclear & radiological emergencies and industrial disasters	It also maps financing arrangements available for mitigating disasters through funds such as State Disaster Response Fund, District Disaster Response Fund, State Disaster Mitigation fund, District Disaster Mitigation fund etc. apart from the NDRF and other central government budgetary allocation for TN	Includes mechanism for review and updating of plan
Provisions for maintenance, monitoring and updating of plan	The action plan maps associated authority, roles and responsibilities and response mechanism to combat disasters	Provisions for review and updating of plan on yearly basis	Provides for disaster recovery and outlines strategy for coordination and dissemination of plan

Local level disaster management plans neither focus on epidemics nor on disaster preparedness

Disaster management plans are prepared at the city level in case of Ahmedabad under the Gujarat State Disaster Management (GSDM) Act, 2003 and in Chennai under the Disaster Management Act, 2005. In case of Amritsar, the plan is prepared at the district level by the district administration under the Disaster Management Act, 2005. In all three cases, the plan covers the following:

- Vulnerability and hazard assessment;
- Institutional framework for managing disasters, in general;
- Standard operating procedures for managing various aspects of disaster management; and
- Detailed standard operating procedures (SOPs) for specific disasters, covering floods and earthquakes.

The first issue with the disaster management plan is it is limited in its coverage of epidemics. The second issue is that neither does it contain any assessment of the municipality's existing resources and vulnerabilities, nor does it guide local governments to prepare for potential disasters on their own.

The focus of the plan is limited to allocation of roles and responsibilities to various officials and departments within the municipality and prescription of emergency protocols. This holds true for Amritsar (where the plan

is prepared by the district administration), as well as for Ahmedabad and Chennai (where local governments prepare the plan).

Even though the Disaster Management Act requires annual updates of the district level disaster management plan, this does not appear to be followed in practice. The disaster management plan for Amritsar was last prepared in 2011, while that for Chennai and Ahmedabad were prepared in 2017.

BOX 6: PLANNING FRAMEWORK UNDER THE DISASTER MANAGEMENT ACT, 2005

The Disaster Management Act provides a planning framework at national, state, district and local levels. At the district level, the plan is prepared by the district authority, after consultation with local authorities and with regards to the national plan and the state plan, and is approved by the state authority. The district plan should be reviewed and updated annually.

The district plan is expected to include the following:

- The areas in the district vulnerable to different forms of disasters;
- The measures to be taken, for prevention and mitigation of disasters, by district-level government departments and local authorities in the district;
- The capacity-building and preparedness measures required by district-level government departments and local authorities in the district to respond to any threatening disaster situation or disaster;
- The response plans and procedures, in the event of a disaster, provide:
 - responsibility allocation to district-level government departments and the local authorities in the district;
 - prompt response to disaster and relief thereof;
 - procurement of essential resources;
 - establishment of communication links; and
 - the dissemination of information to the public.

The Act also requires local authorities to prepare disaster management plans under the supervision of the district authority. These plans are expected to be regularly reviewed and updated, but unlike the district plan the frequency of their updating is not mandated. The plan is expected to contain a provision for capacity-building, preparedness, response plan and procedures to be followed in the event of a disaster.

Disaster management is not integrated into urban planning

Of the three cities, AMC is only local government vested with urban planning as a function. In case of Chennai, Chennai Metropolitan Development Authority (CMDA) and in case of Amritsar, the state-level Department of T&CP are tasked with urban planning. Furthermore, the plans prepared for each of the cities largely serve as instruments for regulating land-use rather than strategic guidance for future investments.

A fall-out of these fundamental issues in the urban planning framework, is a neglect towards incorporating disaster management. CMDA's masterplan is the only one where disaster management has been included. Like the disaster management plans, here too the focus is on earthquakes, floods and landslides but not epidemics. It also does not evaluate the adequacy of or make any proposals for the health infrastructure in the city.

The CMDA Master Plan includes a chapter on disaster management which identifies hazard prone areas in the Chennai metropolitan area for disasters such as earthquake, cyclone, flood, and tsunami. It does not identify or plan for epidemic disasters in the plan. The master plan details a disaster management policy which focuses more on the pre-disaster stage listing strategies and action plan for preparedness, prevention and mitigation of disasters.

The strategies for disaster management listed are as follows:

- Regulating of construction with reference to zone, height, location, number of floors, size of building, setbacks in the development control rules to ensure structurally safe construction to avoid maximum damage during disasters;
- Application of the awareness generation, training and capacity building, preparedness and response plans of the GoI-UNDP Earthquake Vulnerability Reduction Program to cover other natural hazards such as cyclones, floods, tsunami and landslides etc;
- The State nodal agency to continue the pre-disaster preparedness and management measures even after the GoI-UNDP program ends;

The action plans identified with regards to disaster management are as follows:

- To amend the building bye-laws to include special provisions for hazard prone areas in the Chennai metropolitan areas;
- The elected representatives of local bodies and government functionaries should be trained to promote community based disaster risk management;
- To raise a volunteer force in every ward/village and be encouraged to take up disaster preparedness and mitigation activities;
- Disaster management teams to be formed from the Volunteer force and be trained in specific activities such as early warning, immediate rescue, first-aid, food management, shelter management, water supply and sanitation, damage assessment, etc;
- The community based disaster risk management should be participatory with the say of public in formulation of the program and should also address needs of the vulnerable sections such as the people with disabilities, HIV aids and other socially marginalized sections; and
- The preparedness strategy should also include regular up gradation of skills, conducting of training and mock drills and strengthening of local coping mechanisms;

The CMDA identifies that the monitoring and review committee for the disaster management will be under the chairmanship of the Mayor of the Chennai Corporation with representatives from other local bodies, community based organization and Non-Governmental organizations, officials, etc. to monitor implementation of plans relating to disaster preparedness and mitigation.

FINDINGS FROM THE STUDY



The assessment of preparedness and responsiveness of three case cities – Ahmedabad, Chennai and Amritsar have led to the following observations. These observations will be taken into consideration whilst formulating recommendations for improvement in existing institutional, legal, planning and financing framework for mitigating disasters.

The pandemic underscores the need to empower local governments in general and even during the times of health disasters such as the current pandemic

In direct contrast with the Indian Constitution which envisages the urban local governments as a third tier of governance, the Disaster Management Act, 2005 identifies the district administration as the nodal agency for disaster management and allots a subordinate role to local governments. In urban areas, role of the district administration is negligible as compared to the local government. As India increasingly urbanizes, the percentage of urban population in the districts will increase significantly and hence there is a larger population will be under the control of urban local governments. Given their natural proximity to the citizens, local governments are uniquely positioned to co-ordinate a timely and effective response to any disasters within their jurisdiction. This was demonstrated by the local variations in the impact of COVID-19 and the role played by GCC and AMC for managing COVID-19 in their respective cities.

Recognizing the role of local governments in the face of COVID-19, the Gujarat government designated all municipal corporations in the state, including AMC, as the nodal agencies instead of the district administration through the Epidemic Diseases Act, 1897. In case of Chennai, given that the district with the municipal boundaries, the Tamil Nadu government was able to empower GCC to act as the district disaster management authority and also utilize the Epidemic Diseases Act, 1897 to lead the COVID-19 response. A point to note here is that the case of Chennai is a peculiar case where the district is entirely subsumed by the city. Also, the work-around utilized by Gujarat, invoking the provisions of the Epidemics Diseases Act, is not available for disasters other than epidemics.

Another important point to observe here is the need for empowering local governments in general for them to effectively respond to emergencies. All municipal corporations in the state of Gujarat were empowered to lead the COVID-19 response in their respective cities. In the case of Tamil Nadu, it was only in the case of Chennai that the local government was asked to take lead. In contrast, in case of Punjab, for all the cities it was the district administration which lead the pandemic response.

The World Bank study on 'organizational models for governance of urban services' brings out the contrast between Punjab and Gujarat in the matter of empowering the urban local governments. The local governments in Punjab, including MCA, lack autonomy in matters of policy, finance and staffing. Consequently, the district administration retained the role of leading COVID-19 in all the cities in the state including Amritsar. Currently the local governance in Punjab witnesses extensive state government control in their day-to-day decision making. All resolutions passed by the local governments in Punjab need to be approved at the state government level by the Department of Local Government at the state level. Annual budgets of the local governments need state government's approval. All recruitment decisions including creation of new posts require an approval of the state government.

Presently, for all projects of the local government costing above INR 10 million (0.3% and 1.1% of MCA's revenues), a technical approval is required from the state government, while for projects costing more than INR 5 million, a financial approval is required from the state government. The Department of Local Government in Punjab, rather than the local governments, determines property tax rates. While the legal framework allows the corporation to decide water tariff rates, the exemptions are defined by the state government, thus giving an incomplete authority to the corporation in tariff fixation.

This contrasts with the municipal corporations in Gujarat which are empowered to recruit staff for approved posts, revise their tariffs for services provided and carry out expenditure without approvals from the state government. Unlike Punjab, the local governments in Gujarat also do not require state governments for resolutions passed on policy matters.

Existing planning framework for disaster management at city level/district level is focused towards responsiveness and not preparedness as well as fails to recognize epidemics as disaster

The DM plans, in accordance with the DM Act 2005, have to be developed at national, state, district and local government level. The DM plans prepared at district and local government level must reflect on provisions in the state level plan. However, while the national level DM plan and state level DM plan for Gujarat and Punjab addresses epidemics as disasters, the respective city and the district DM plans fail to recognize it. Epidemics, in these plans, are considered as a potential fall-out of other disasters such as floods or earthquakes but not as a stand-alone disaster by itself.

The DM plan prepared by AMC and GCC as well as Amritsar's district administration, currently, is focuses on mapping roles and responsibilities of officials/departments and prescribing emergency protocols, but ignores mapping availability of existing resources to combat disaster. The plan does not recognize the financial burden of disaster response and set out a framework to cater to the same. The DM Act mandates annual updating of the DM plans even at local government level. However, in practice, the DM plans prepared by AMC and GCC have not been updated since 2016.

Another issue is the integration of DM with urban planning. This may be a consequence of fundamental issues such as urban planning not being a function of local governments such as MCA and GCC. In case of MCA, the masterplan is prepared by the Department of T&CP which has little or no role in DM. Another issue is that these plans as such serve the limited purpose of regulating land-use rather than serving as strategic guidance for urban development. The existing land use plan, do not identify potential sites which can be utilized/developed for providing infrastructure such as temporary shelters, quarantine facilities, crematoria and testing facilities during a disaster.

Local governments need to be strengthened further to manage epidemics and other disasters

None of the three local governments have a dedicated team for DM nor is DM the responsibility of any one department within the local government. There is need to strengthen the local governments by aligning their organizational structure for responding to disasters.

The need for strengthening inter-departmental co-ordination, during COVID-19, was seen in the case of Chennai. At the height of the pandemic in its first phase, GCC took steps to break departmental silos by re-organizing its field staff into multi-departmental response teams. This was one of the measures following which the spread of the disease was arrested in the first phase.

In this regard, AMC may have been on a better footing to respond to COVID-19 considering that it houses a dedicated epidemic control cell within the health department. At the time of COVID-19, this cell was used to co-ordinate with other departments within AMC on the health sector response and also to train and skill human resources for activities such as contact tracing and testing. AMC, however, does not have a team or unit which can play these roles in the event of other kinds of disasters.

Financing framework at the local government level needed to make disaster response more effective

The DM Act, 2005 provides for a framework for financing mitigation as well as relief activities in the event of a disaster. This includes disaster relief funds at the national, state and district level. Even in the event of COVID-19, a substantial portion of the local government finances would have been committed for essential services such as water supply, sanitation, SWM, street lighting and healthcare. All of the three local governments have required financial assistance from the state government in order to finance expenditures on extra-ordinary items such as PPE kits, testing, provision of food and shelter and setting up of temporary hospitals and quarantine centers.

This burden was met through ad hoc transfers from the state government's budget and the state disaster relief fund. Such an arrangement bears the risk of delays or lack of clarity on the extent of resources available. In the case of GCC, the state government sanctioned less than 1/4th of the total funds requested by the local government from the SDRF. The probability of delays in sharing resources may be higher in case of disasters, which unlike a pandemic, may be local to the city.

Amend the Disaster Management Act, 2005 to create provision for making local governments the nodal agency at the city level

The Disaster Management Act, 2005 presently identifies the district DM authority as the nodal agency for managing disasters with the local government playing a secondary role. The law, at the national level, needs to be amended so that the local government instead can lead disaster management in their respective cities. The amendment should also empower local governments, on the lines of the district DM authority, to issue directions to other agencies for disaster response, to requisition private resources and to restrict movement of persons and vehicles.

Set up a Disaster Management Unit at the ULB level

Building an institutional memory on disaster response and making focused efforts for ensuring preparedness require a permanent set-up with clearly delineated responsibilities. Different aspects of disaster management are delegated to different departments within the local government with no team for evaluating, monitoring, coordinating and updating plans for responding to potential disasters.

Setting up a disaster management unit directly under the municipal commissioner and making it responsible for assisting the local government in formulating strategies, coordinating between municipal departments as well as external stakeholders and monitoring the response may be a useful reform. At other times, this unit could be tasked with reviewing vulnerabilities, monitoring disaster risk, updating the city disaster management plan, overseeing implementation of preparedness measures, capacity building and IEC.

DISASTER MANAGEMENT UNIT (DMU) AT MUNICIPAL CORPORATION OF GREATER MUMBAI (MCGM)

The DMU at MCGM was set up in 1999 as a part of the head office of MCGM. The DMU is responsible for preparing as well as responding to disasters and is permanently operational. It is headed by a full-time director who is supported by staff which includes administrative, engineering and clerical personnel along with control room operators. The total number of sanctioned posts (included contractual positions) is 282.

The DMU is tasked with preparing and updating the city disaster management plan. Some of its routine activities include conducting IEC programs, mock drills, capacity building initiatives, monitoring tidal patterns and weather forecasts (given Mumbai's vulnerability to floods) in which it engages with a wide range of stakeholders including other government departments, general citizens, public institutions such as schools and hospitals as well as private organizations. It also maintains an inventory of essential equipment and material which may be needed in an event of a disaster.

In an event of a disaster, the DMU serves as a command & control agency between the administration and field units as a single-point source disaster management related issues. It is responsible for issuance of early warnings and alerts to the agencies involved in disaster management as well as the citizens. It also coordinates on the response with relevant departments, agencies and NGOs in terms of:

- Deploying first responders through fire brigade, hospitals and search and rescue teams;
- Arranging for emergency supplies of water and food;
- Coordinating the setting up of temporary shelters; and
- Transfer of stranded & marooned persons including emergency transport for the seriously injured.

The DMU is equipped with communication infrastructure to enable it to perform its role which includes hotlines to emergency facilities, helplines for citizens to reach out to MCGM as well as wireless communication system to allow for continued contact with key agencies and teams during an emergency.

Set up an Epidemic Control and Prevention Cell under the health department at the local government level

One of the steps that local governments may take is to emulate AMC in setting up a dedicated Epidemic Control and Prevention Cell within their health department headed by a full-time epidemic control officer. Such a dedicated team would be positioned to institutionalize the learnings from tackling COVID-19 for future epidemics and pandemics. COVID-19 pandemic has served to highlight the inherent vulnerability of cities in the face of epidemic outbreaks. In case of cities which are directly involved in healthcare, one of their functions is to monitor disease outbreaks and take appropriate measures for its control. This responsibility falls upon the health department within the local government. But a dedicated cell may help sharpen the focus on early detection of disease outbreaks. Apart from its role in monitoring, in the event of a disease outbreak, such a cell can build on its specialized expertise to formulate the appropriate health sector response.

Make local governments responsible for urban planning

If local governments are to be tasked with preparing for disaster management, then a pre-requisite is that the urban planning function should vest with them. This is presently not the case for Amritsar and Chennai. The Department of T&CP in Punjab and the CMDA have negligible or no role in disaster management. In addition, there is a need to evolve urban planning into an exercise for building consensus on future growth patterns and planning investments to support the same.

These changes would enable mainstreaming of disaster management in urban planning in a meaningful manner and to incorporate learnings from COVID-19 experience and incorporate relevant measures in their urban planning framework such as prioritizing the availability of basic sanitation, identifying sites for setting up temporary hospitals and shelters. Other recommendations for improved disaster management plans are provided in the following section.

Formulate state policy guidance and provide technical assistance on best practices in disaster management planning

Of the three cities studied, only AMC and GCC have prepared disaster management plans for their respective cities. Even in the case of these two local governments, the scope of disaster management plans needs to be expanded beyond looking at allocation of roles and setting up procedures for coordinating disaster response. These plans also need to look beyond disasters such as earthquakes and floods and also need to incorporate epidemics. There is need for state level policy guidance to disseminate best practices in planning for disasters and to provide technical assistance for cities to focus on preparedness and to advice on how to plan for future epidemics.

These plans need to also include an assessment of the city as well as the institutional vulnerabilities and identify measures to improve their preparedness in the event of future disasters. This could include identifying high risk demographics and locations, and planning for building capacity and awareness amongst various stakeholders, developing a resilient communication infrastructure, planning for buffer capacity in emergency services and identifying sites and locations for setting up temporary facilities. Specific to the case of epidemics, this should include an assessment of available testing infrastructure, PPE kits, healthcare infrastructure and scope for building capacity of personnel such as medical students and anganwadi workers for responding to such events.

Set up a city level disaster management fund

To this end, in addition to making local governments responsible for disaster management, a city disaster management fund could also be set up. In line with the SDRF, this could be financed partly through contributions from the state government and partly by the local government itself. Particularly in the event of localized disasters, this would allow the local government easy access to emergency funds. The size of this fund could be determined based on the recommendations of the state finance commission.

Provide greater autonomy to local governments to function as the institutions of self-government by reducing the state government control in local level decision making

Local governments, given their natural proximity to the citizens, are best positioned to respond to an emergencies such as pandemic or any other disaster. Preparedness and effective response on their part requires autonomy to take policy and other decisions customized to the local context.

If local governments such as MCA are to be responsible for disaster management, this has to be preceded by greater autonomy in general such as the local governments in Gujarat enjoy. From the point of view of disaster response, it would be vital to empower them to make policy resolutions and undertake expenditure without requiring prior state government approvals. From the point of view of preparedness, this would require making them, instead of the Department of T&CP, responsible for urban planning within their jurisdiction.

ANNEXURES



Annexure-1: National and state level frameworks for epidemic management

In the beginning of March 2020, COVID-19 spread was limited to Thrissur and Alappuzha districts in Kerala and a case each in Delhi and Telangana, which spread to about 28.3 million cases in the country till June 1, 2021. The peak was on September 19, 2020 with about 1 million active cases during the first wave of pandemic, whereas, the peak of second wave was on May 7, 2021 with 3.7 million active cases.

TABLE 9 STATE AND NATIONAL LEVEL COVID-19 STATISTICS

	Gujarat	Tamil Nadu	Punjab	India
Population (2011)	6,04,39,692	7,21,47,030	2,77,43,338	1,21,08,54,977
Phase-1 (March 2020 – January 2021)				
Cases (cumulative)	2,45,772	8,18,935	1,66,770	1,03,06,469
Cases per million (cumulative)	4,066	11,351	6,011	8,512
Deaths (cumulative)	4,309	12,135	5,349	1,49,255
Deaths per million (cumulative)	71	168	193	123
Number of active cases	9,563	8,380	3,517	2,47,427
Number of active cases at peak	16,736 (Oct 4, 2020)	57,959 (July 30, 2020)	22,399 (Sept 19, 2020)	10,13,931 (Sept 18, 2020)
Phase-2 (January 2021- 1st June 2021)				
Cases (cumulative)	566,291	13,04,094	405,200	18,000,566
Cases per million (cumulative)	9,370	18,076	14,605	14,866
Deaths (cumulative)	5,564	12,587	9,399	185,861
Deaths per million (cumulative)	92	174	339	153
Number of active cases	26,232	2,96,131	31,133	17,89,456
Number of active cases at peak	148,297 (May 4, 2021)	3,13,048 (May 27, 2021)	79,963 (May 12, 2021)	37,19,192 (May 7, 2021)

Source: covid19india.org.

Legislative framework

Public health, under the Indian Constitution, falls under the domain of state governments. Following the 73rd and 74th amendments to the Constitution in 1993, which gave constitutional status to the panchayati raj institutions, and local governments 'Public Health' found a place in the 11th and 12th schedules, specifying their functions. While the concurrent list under entry 29 includes 'Prevention of the extension from one state to another of infectious or contagious diseases or pests affecting men, animals or plants.'

There are two key central and state government legislations, which have governed the response under COVID-19. This also includes legislation pertaining to disaster management, epidemic management, public health and municipal legislation relevant to the three cities considered under this study – Ahmedabad, Chennai, and Amritsar. This chapter focuses on the national level legislation, COVID-19 regulations issued by state governments under the Epidemic Diseases Act, 1897 and Gujarat State Disaster Management Act, 2003. The municipal and public health legislation are dealt with in the following chapters, which document the case of the three study cities.

FIGURE 2 LEGISLATIVE FRAMEWORK FOR COVID-19

National level		
<ul style="list-style-type: none"> ▪ Epidemic Diseases Act, 1897; and ▪ Disaster Management Act, 2005. 		
Gujarat	Tamil Nadu	Punjab
<ul style="list-style-type: none"> ▪ Gujarat Epidemic Diseases COVID-19 Regulations, 2020 (under Epidemic Diseases Act, 1897); ▪ GSDM Act, 2003; ▪ Gujarat Public Health Act, 2009; ▪ Gujarat Emergency Medical Services Act, 2007; and ▪ Gujarat Provincial Municipal Corporations Act, 1949. 	<ul style="list-style-type: none"> ▪ Tamil Nadu COVID-19 Regulations, 2020 (under Epidemic Diseases Act, 1897); ▪ Tamil Nadu Public Health Act, 1939; and ▪ Chennai City Municipal Corporations Act, 1919. 	<ul style="list-style-type: none"> ▪ Punjab amendment to Epidemic Diseases Act, 1897; ▪ Punjab Epidemic Diseases COVID-19 Regulation 2020 (under Epidemic Diseases Act, 1897); and ▪ Punjab Municipal Corporation Act, 1976.

The Epidemic Diseases Act, 1897, which was passed a year after the bubonic plague in the erstwhile Bombay Presidency, empowers state governments to adopt special measures in the event of an epidemic. It also empowers the central government to inspect passengers under certain limits during an epidemic. This act was further amended by the central government on September 28, 2020 to criminalize any acts of violence against healthcare professionals and set the compensation payable for such attacks, including damage to property, at twice the market value.

Punjab had amended this law in 1944 to allow the powers prescribed to the state to be delegated to the district administration, except assigning financial responsibilities. All three states (Gujarat, Tamil Nadu and Punjab) have notified regulations for managing COVID-19 under this act. A snapshot of these regulations is provided in the Table 3.

FIGURE 3 COVID-19 REGULATIONS

Gujarat Epidemic Diseases, COVID-19 Regulations, 2020	Punjab Epidemic Diseases COVID-19 Regulations, 2020 ⁹	Tamil Nadu COVID-19 Regulations, 2020 ¹⁰
Empowers the district administration and local governments to implement containment measures, including but not limited to the sealing of geographic area, barring entry and exit of population, closure of schools, offices and public gatherings, banning vehicular movement, initiating active and passive surveillance of COVID-19 cases, hospital isolation, designation of any government/private building as containment unit for isolation and any such measures directed by the Health and Family Welfare Department	The district administration has been provided rights to implement COVID-19 containment measures	The district administration has been provided rights to implement COVID-19 containment measures
The District Disaster Management Committee (DDMC) headed by a district collector for planning strategy regarding containment measures for COVID-19 and can co-opt officers from different departments of the DDMN	A committee chaired by the deputy commissioner and SSP, civil surgeon and other officers of the district have been formed to take decisions on containment of COVID-19	
Municipal commissioners are also empowered to admit and isolate a person having travel history in COVID-19 prone areas and is symptomatic	The state health department has been provided rights to admit/ isolate a person having travel history in COVID-19 prone areas and is symptomatic	

The Disaster Management Act was enacted by the central government against entry 23 of the concurrent list, which concerns ‘social security and social insurance; employment and unemployment’. It is under the Disaster Management Act, 2005, of the central government that the MHA has issued regular lockdown-related directives since the onset of COVID-19. According to the act, institutions such as NDMA and the National Institute of NIDM have been set along with state- and district-level disaster management authorities. The law lays out the institutional, planning and financing framework for preventing and responding to disasters.

This disaster management legislation at the central level was enacted on the heels of the state level legislation for disaster management by Gujarat, Bihar, Uttarakhand and Uttar Pradesh. However, many other states do not have a state level legislation for disaster management, including Punjab and Tamil Nadu.

Gujarat was the first state to provide a legal and regulatory framework for disaster management with the enactment of the GSDM Act in 2003¹¹. Post the earthquake of 2001 in Gujarat, the state government formed Gujarat State Disaster Management Authority (GSDMA) under the provisions of the Societies Registration Act

9 <https://medicaldialogues.in/state-news/punjab/preparing-for-coronavirus-punjab-cabinet-clears-punjab-epidemic-diseases-covid-19-regulations-2020-what-it-means-63643>

10 <https://nidm.gov.in/covid19/PDF/covid19/state/Tamil%20Nadu/3.pdf>

11 <http://www.gsdma.org/Content/gujarat-state-disaster-management-act-2003-4239#:~:text=The%20purpose%20of%20this%20Act,in%20the%20aftermath%20of%20disasters.>

and Bombay Public Trust Act for rehabilitation and reconstruction program in earthquake affected areas, as well as act as a nodal agency to plan and implement pre-disaster preparedness.

With the enactment of the GSDM Act, GSDMA was reconstituted as a statutory authority. The GSDM Act is applicable to the situation of public health emergency within the state as the act defines a disaster as natural or otherwise event which causes or threatens to cause widespread loss or damage to property, widespread loss of human life or injury or illness among humans or damages/degrades the environment. In accordance with the mandate of the GSDM Act, a disaster management authority (GSDMA) is responsible for developing the preparedness and responsiveness of the authorities identified for disaster management within the state.

The identified authorities include the state government, GSDMA, heads of all government departments, a state relief commissioner¹², a district collector, and local authorities. The scope of work of GSDMA extends to mitigating/reducing risk and severity of disasters, capacity building, emergency preparedness, assessing effects of disasters, providing emergency relief and rescue and post disaster rehabilitation and reconstruction. The GSDMA constitutes of a chairperson and not more than 14 members, including, the chief minister (acts as chairperson), two ministers nominated by the chief minister, the chief secretary of the state, secretary to the government of Gujarat - revenue department, the CEO of the authority¹³, state relief commissioner, director general of police and other officers, as the state government may deem fit.

Institutional framework

While the Epidemic Diseases Act, 1897 does not lay out an institutional framework, the Disaster Management Act, 2005 provides for the setting up of authorities at the national, state and district levels. The National Disaster Management Authority (NDMA), set up under this legislation, is chaired by the Prime Minister. Some of the responsibilities it is tasked with include finalizing national-level policies and plans for disaster management and laying down guidelines for various agencies, including state-level authorities. It is responsible for coordinating the implementation of the policies and plans and recommending funding provisions for mitigation activities.

A NEC is also set up under this legislation, tasked with preparing the national-level plan, providing technical assistance, monitoring plan implementation, and acting as the coordinating and monitoring body in the case of a disaster. In the event of an emergency, it can issue directions to the state government and government departments and also require resources to be mobilized between government departments. The Home Secretary chairs the NEC, which also comprises secretaries from various other ministries and departments in the central government and the Chief of the Integrated Defense Staff of the Chiefs of Staff Committee.

Similar to the NDMA and NEC, the Disaster Management Act provides for a SDMA chaired by the Chief Minister. It is required to be formed in addition to a State Executive Committee chaired by the Chief Secretary. The chairman of the SEC also acts as the CEO of the SDMA. The legislation also provides for the formation of district disaster management authorities (DDMA) which are to be chaired by the district collector or district magistrate or deputy commissioner heading the district administration along with chairperson of the zilla parishad or the elected representative of the local authority acting as co-chairperson. Other members of the DDMA include the CEO of the district authority, superintendent of police, chief medical officer of the district, and two other district-level officers. Further, the additional collector or additional district magistrate or additional deputy commissioner of the district administration is to be appointed as the CEO of the DDMA. The DDMA may issue directions to the local government to take necessary measures in the event of a disaster.

12 Appointed by the state government for entire state having rank not below the rank of Secretary to Government and performs functions related to disaster management.

13 Appointed by the state government and is an officer of rank not below the rank of Secretary to Government.

In the course of COVID-19, the MoHFW along with the ICMR and Department of Health Research has been guiding the health sector response at the national level. The respective Departments of Health and Family Welfare (DoHFW) do the same at the state level. The MoHFW has been responsible for formulating the pandemic management strategy, launching extensive public communication campaigns and issuing various advisories for measures such as social distancing. The MoHA has been involved in implementing the lockdowns and coordinating the movement of migrants across state boundaries. The NDMA too has been involved in issuing advisories to states regarding travel, hygiene, social distancing, and psycho-social care, engaging with civil society organizations and enhancing isolation facilities at the district level.

In addition, an all-of-government approach has been adopted at both central and state government levels, with inter-ministerial and inter-departmental committees formed to manage various aspects of the pandemic both at the national level and in the states of Punjab, Gujarat and Tamil Nadu. At the national level, there were 11 empowered groups, led by at least a secretary-rank officer from the relevant ministry or department. Their brief was to 'delineate policy, formulate plans, strategize operations, and take all necessary steps for effective and time-bound implementation of these plans/policies/strategies/decisions in their respective areas'.

1. Medical Emergency Management Planning;
2. Availability of hospitals, isolation and quarantine facilities, disease surveillance, and testing, and critical care training;
3. Ensuring availability of essential medical equipment such as PPEs, masks, gloves, and ventilators; and their production, procurement, import and distribution;
4. Augmenting human resources and capacity building;
5. Facilitating supply chain and logistics management for availability of necessary items such as food and medicines;
6. Coordination with civil society, private sector and international organizations;
7. Economic and welfare measures;
8. Information, communication and public awareness;
9. Technology and data management;
10. Public grievances and suggestions; and
11. Overall strategic issues relating to the lockdown.

Planning framework

While the Epidemic Diseases Act does not lay out a planning framework, the Disaster Management Act provides for the preparation of plans at the national, state, district, local levels and also departmental plans at each of these levels. The national, state and district plans need to be revised on an annual basis. The national and state plans are to be prepared by the NEC and SEC, and approved by the NDMA and SMDA, respectively. The district plan is to be prepared by the DDMA and approved by the SDMA. The plans to be prepared by the local authorities are to be reviewed by the DDMA.

The planning framework for managing epidemics at the national level is through the national disaster management plan, which is revised annually, and the national guidelines for managing biological disasters which were published by NDMA in 2019 and 2008.

The national disaster management plan identifies biological and public health emergencies as a key disaster event. Under the plan, the MoHFW is identified as the nodal agency at the national level while respective departments for health and family welfare are identified to act as nodal agencies at the state level. It provides guidance on the role to be played by the central and the state agencies for risk assessment, inter-departmental co-ordination, investing in disaster recovery and resilience (structural and non-structural measures), capacity building and climate change risk management.

The National Disaster Management Guidelines for Management of Biological Disasters, 2008 guidelines identify MoHFW as the nodal ministry for managing biological disasters such as epidemics. The NEC is responsible for overall disaster management. The guidelines cover measures for the prevention of biological disasters (such as vulnerability analysis and risk assessment, environmental management, prevention of post-disaster epidemics, and strengthening of IDSP). It covers pharmacological interventions including chemoprophylaxis, immunization and such other measures, and also non-pharmacological interventions such as social distancing measures and disease containment through isolation and quarantine. The guidelines cover general preparedness (command, control and coordination functions, capacity development and critical infrastructure), medical preparedness (hospital disaster management planning, mobile hospitals and teams, stockpiling of antibiotics and vaccines) as well as emergency medical and public health response. The guidelines on emergency response cover command and control for public health response, emergency medical response, transportation of patients, treatment at hospitals, domiciliary care, and public health response. The public health response includes outbreak investigation, public health measures, risk communication, psycho-social care, post-outbreak surveillance, media, inter-sectoral coordination, monitoring, and evaluation.

While Punjab, Gujarat and Tamil Nadu have all prepared state-level disaster management plans, unlike the national plan, these do not focus on biological disasters such as epidemics. The disaster management plan for Tamil Nadu recognizes GCC as the nodal agency for managing disasters at the district level in Chennai.

Financing framework

Similar to the case with the planning framework, the Epidemic Diseases Act does not provide specifically provide a financial framework, though this is covered under the Disaster Management Act. The legislation requires Disaster Response Funds and Disaster Mitigation Funds to be set up at the national, state and local levels. The national and state disaster mitigation funds are managed by the NDMA and SDMA, respectively. The disaster response funds at the national as well as the state are managed by the NEC and SEC. State disaster response funds (SDRFs) set up under the Disaster Management Act, 2005 are funded based on the recommendations of the finance commission. The central government contributes to 75%¹⁴ of this fund. The remainder is required to be contributed by the state governments themselves. State governments are permitted to draw up to 10% of these funds for emergency relief in the event of a disaster. State government are also permitted to utilize 5% of the annual allocation for capacity-building activities including the preparation of disaster management plans. The DDMA is to manage both the response as well as the mitigation fund. The legislation however does not require any such funds to be set up at the local level with the local governments.

The legislation also requires central and state government departments to make provisions in their budget to implement their disaster management plans. Such provisions are not applicable to local governments. It also empowers the national, state and district authorities to allow for emergency procurements in the event of an emergency by forgoing standards procedure for tendering. This provision too does not extend to local governments.

14 In the case of special category states, the central government contribution is 90%. These states include Jammu and Kashmir, Assam, Nagaland, Arunachal Pradesh, Himachal Pradesh, Manipur, Meghalaya, Mizoram, Sikkim, Tripura and Uttarakhand.

Key initiatives for pandemic management

	Central government	State government
Public health	<p>The central government's role in managing the public health aspects of COVID-19 involved:</p> <p>Containment:</p> <ul style="list-style-type: none"> Restricting international travel to limit the exposure of the country to the virus; and Implementation of nationwide lockdowns to restrict inter-state travel and slow the outbreak within the country. <p>Supply of medical equipment and kits:</p> <ul style="list-style-type: none"> Ensure supply of medical equipment and kits by ramping up the domestic production of PPE kits, N95 masks, ventilators, and testing kits. <p>Guidance on public health management:</p> <ul style="list-style-type: none"> Formulation of testing strategies & protocols through ICMR; Formulating protocols and accrediting private laboratories to expand testing capacity; and Undertaking research and providing advisories on treatments for COVID-19 patients and also prophylaxis for frontline workers and other at risk population. 	<p>The state governments have been involved in:</p> <p>Containment</p> <ul style="list-style-type: none"> Shutting down public amenities and institutions such as schools, colleges, gyms, and wedding halls; and Implementing lockdown prior to the nation-wide lockdown issued by the MHA. <p>Ensuring availability of medical facilities and resources</p> <ul style="list-style-type: none"> Designating hospitals for treatment of COVID-19 patients; and Procurement and monitoring of medical supplies and PPE kits. <p>Guidance on public health management:</p> <ul style="list-style-type: none"> Formulation of guidelines on reporting of COVID-19 symptoms and triage; Formulation of guidelines for preventive measures to be taken; Collating and analyzing information on pandemic cases; and Formulation of guidelines to guide triage, testing, clinical management of the pandemic and management of corpses.
IEC	<p>The central government undertook national level campaigns to create awareness regarding COVID-19 and the lockdown implemented in the country:</p> <ul style="list-style-type: none"> To contain the spread of wrong information, the government set up a dedicated Fact Check Unit, which replied to more than 5,700 cases over April and May; 'COVID-19 India Seva', an interactive platform harnessing Twitter for a direct, real-time channel of communication between citizens and the government during the pandemic, was also launched in April; and The government set up helplines for the migrant workers. From 2-18 May alone, 22,568 calls were received with respect to 213,330 stranded migrant workers. 	<p>The state governments have been involved in setting up state-level COVID-19 helplines and portals to assist citizens and migrant workers</p>

	Central government	State government
Ensuring access to food and other essentials	<p>The central government rolled out welfare schemes aimed at providing relief to vulnerable sections of the society in terms of access to food and cooking fuel. It also acts as a tool of regulatory action to prevent skyrocketing of prices of essential goods:</p> <ul style="list-style-type: none"> ▪ Rollout of the Pradhan Mantri Garib Kalyan Anna Yojana food scheme under which wheat, rice and pulses are provided to beneficiaries; ▪ With effect from March 28, three hygienically prepared meals were provided for the residents of Shelters for Urban Homeless (SUH) per day, during the lockdown; ▪ Allotment of free LPG cylinders under Ujwala scheme ▪ The government moved to secure the availability of essential commodities early on, invoking the provisions of the Essential Commodities (EC) Act 1955 on April 8, fixing stock limits, capping prices, enhancing production, calling for the inspection of accounts of dealers, and other such actions; and ▪ Relaxing requirements for movement permits for goods trucks, coordinating state governments and operating flights under UDAN for transporting essential medical supplies and testing. 	<p>Similar to the central government, the state governments too have launched schemes to supply free or subsidized meals and ration for vulnerable sections of society. State governments have also issued orders to allow local authorities to spend on purchase and distribution of food, medicines and other essentials</p>
Human and financial resource management	<p>The central government's role included creating resources for capacity building, aiding access to healthcare resources and also extending financial support to the state governments:</p> <ul style="list-style-type: none"> ▪ The government has prepared a master database of healthcare professionals and volunteers, which has 15.9 million records, under 57 different categories. The states, Union Territories, and district administration use this database to plan their human resource deployment in the context of the COVID-19 response; ▪ The government has set up an Integrated Government Online Training (iGOT) portal, which offers 55 specific training courses in 11 regional languages besides Hindi and English; and ▪ On March 28, the central government allowed the use of the State Disaster Response Fund (SDRF) for the implementation of these measures. The government released, in advance, an amount of INR 110.92 billion of SDRF funds to all states. 	<p>State governments have been responsible for mobilizing finance and human resources to support the various departments, district authorities and local authorities in the state through the following measures:</p> <ul style="list-style-type: none"> ▪ Financing emergency expenditure using the State Disaster Response Fund; ▪ Collecting donations for COVID-19 aid under the CM's Relief Fund; ▪ Designating senior bureaucrats to oversee COVID-19 management by local authorities and deputation of state governments employees to local governments; ▪ Extending tenures of retiring medical personnel, contract-based recruitment of medical college staff and health sector workers, assigning additional responsibilities to district epidemiologists; ▪ Managing human resource allocations and mobilization within the state; and ▪ Providing compensation packages for loss of life of frontline workers.

	Central government	State government
Mitigating socio-economic impact	<p>The central government acted in three broad areas to manage the secondary impact of the pandemic in terms of loss of livelihood and economic slowdown. This included providing cash and credit transfers to beneficiaries, providing a stimulus to various sections of the economy and coordinating the movement of migrant workers across state boundaries.</p> <p>Financial assistance to vulnerable sections</p> <ul style="list-style-type: none"> ▪ Allotment of INR 500 per month to Jan Dhan account holders; ▪ For 630,000 Self-help Groups (SHGs) aiding 70 million households, the government doubled collateral-free loans to INR 0.2 million; ▪ Disbursal of a Revolving Fund (RF) to SHGs was on-boarded on PAiSA Portal in April, on a pilot basis in Gujarat; and has since been rolled out across all states; and ▪ On the organized worker front, the Employees Provident Fund Organization (EPFO) announced contributing employees could withdraw up to 75% of the account balance or 3 months' basic salary and dearness allowance, whichever was lower. For those establishments employing up to 100 people, 90% of whom earn up to INR 15,000 per month, the government announced it would pay the EPF contribution of both employer and employee (12% each) for April to June 2020. Additionally, the EPFO extended the due date for the contribution for wage month of March 2020 by a month, moving it to May 15, 2020. <p>Economic stimulus</p> <ul style="list-style-type: none"> ▪ Providing 30 million farmers with agricultural loans of INR 4,220 billion with a three months' loan moratorium; 2.5 million new Kisan Credit Cards (KCC) sanctioned with a loan limit of INR 250 billion; 6.3 million loans of INR 866 billion approved in agriculture from March 1-April 30; the refinancing of INR 295 billion provided by NABARD to cooperative and regional rural banks in March; support of INR 42 billion provided under the Rural Infrastructure Development Fund to states during March for rural infrastructure; and working capital limit of INR 67 billion sanctioned for procurement of agriculture produce to state government entities since March; 	<p>In addition to the measures adopted by the central government, state governments have taken measures such as extending deadlines for payment bill of utility bills.</p> <p>State governments have also been responsible for alleviating hardships faced by migrant workers by directing local authorities to provide them shelter, organizing inter-state bus transport, and coordinating with the Railways to run Shramik trains for their transport</p>

	Central government	State government
	<ul style="list-style-type: none"> ▪ Special economic and comprehensive package of INR 20,000 billion to cater to various sections including cottage industry, micro, medium, small and medium enterprises, laborers, middle class, and industries, among others; and ▪ Economic stimulus measures took the form of free ATM transactions, reduced bank charges for digital trade transactions, an increased threshold of default to INR 10 million, among other relief measures applying to liquidity and repayment of loans (a three-month moratorium on loans outstanding as of March 1, 2020). <p>Assisting migrant workers</p> <ul style="list-style-type: none"> ▪ The NDMA established a GIS dashboard to facilitate coordination between the states sending the migrant workers and states receiving them; ▪ The MHA also coordinated the movement of migrant workers through special Shramik trains; ▪ From May 1-June 21, 2020, the Indian Railways ran 4,550 Shramik trains and carried 6.215 million workers from all over the country to their home states. In addition, more than 4.1 million workers moved through road transport; and ▪ State governments were directed to use the welfare fund for building and construction workers, and the District Mineral Fund, worth about INR 310 billion, was allocated for those facing economic disruption because of the lockdown 	

Annexure-2: Case of Ahmedabad, Gujarat

Introduction

The city of Ahmedabad is the largest city in the Gujarat state, residing more than 5.5 million people. The city lies in severe intensity zone for earthquake and has previously faced several natural disasters. In terms of health-related disasters, the city has countered four such disasters, including the COVID-19 pandemic. The first outbreak was of Chikungunya in 2006 that reported 60,777 cases¹⁵ and 10 deaths were reported by AMC as suspected deaths under the influence of Chikungunya.

In 2010, the health department of AMC identified a surge in the number of jaundice cases during their regular surveys in the north zone of Ahmedabad, the reason being water contamination in distribution lines that were damaged during on-going road repair works. Based on a survey conducted in 377 houses by AMC in the affected area, 80 houses (21.22%) had cases of jaundice.¹⁶ To bring the epidemic under control, AMC formed a rapid-response team from NHL Municipal Medical College. The water department of AMC quickly responded by solving the contamination issue in distribution lines due to breakages. The health department also took preventive measures, such as super chlorination of drinking water, constant monitoring of residual chlorine and increase awareness.

About 2,186 cases of Swine flu and 135 deaths due to Swine flu were reported in AMC limits until October 2015. To bring down the cases, AMC prominently conducted IEC activities in government and private schools and distributed pamphlets. TV scrolls were presented on various channels, and advertisements were published in local newspapers for generating awareness regarding Swine flu.

The district collector of Ahmedabad imposed Criminal Procedure Code's Section 144, prohibiting mass gatherings without permission in February 2015, as more than 50 people had died because of this flu since January 2015¹⁷. After four years, the flu emerged again in April 2019 – 1,322 cases of Swine flu and 28 deaths due to Swine flu were reported in AMC limits¹⁸. About 122 isolated beds in 5 government hospitals and 57 ventilators were made available for Swine flu patients by AMC¹⁹.

The survey team of AMC was deployed to identify suspected cases. The health department also conducted surveys and checking across private hospitals as well and served notice to 7 hospitals that did not have isolation wards and were treating Swine flu patients²⁰. Simultaneously, cases of jaundice (239 cases until January 2019) and typhoid (129 cases until January 2019) also surged within AMC limits, due to water contamination. The health department of AMC was addressing the spike in such cases²¹.

Thus, AMC has a long and recent history of dealing with epidemics but at a much lower scale. With the advent of COVID-19, AMC's role in mitigating the pandemic widened.

15 <https://timesofindia.indiatimes.com/blogs/science-nomad/chikungunya-epidemic-2006-of-ahmedabad-where-is-the-dark-horse-of-average-seasonal-deaths/?source=app&frmapp=yes>

16 Investigation of an epidemic of Hepatitis in Ahmedabad City; Sheetal Vyas, Sonal Parikh, Rachna Kapoor, Vaibhavi Patel, Anand Solanki, National Journal of Community Medicine 2010

17 <https://timesofindia.indiatimes.com/india/Section-144-imposed-in-Ahmedabad-to-prevent-swine-flu-as-toll-mounts-to-231-in-Gujarat/articleshow/46359843.cms>

18 <https://timesofindia.indiatimes.com/city/ahmedabad/h1n1-deaths-gujarat-most-vulnerable/articleshow/73282419.cms#:~:text=Ahmedabad%3A%20Gujarat%20is%20India's%20most,comes%20to%20swine%20flu%20deaths.&text=%E2%80%9CA%20total%20of%201%2C322%20positive,till%20April%201%20in%202019.>

19 <https://timesofindia.indiatimes.com/city/ahmedabad/swine-flu-hits-citys-west-hard/articleshow/67967145.cms>

20 <https://www.dnaindia.com/ahmedabad/report-ahmedabad-municipal-corporation-seals-7-hospitals-sans-isolation-ward-2722765>

21 https://www.dnaindia.com/ahmedabad/report-ahmedabad-municipal-corporation-reports-65-h1n1-cases-2-deaths-in-january-2710567?utm_source=nyoooz&utm_medium=post

COVID-19 trends and statistics

Ahmedabad reported the highest number of COVID-19 cases in Gujarat, as of June 1, 2021. The Ahmedabad district had reported 236,836²² COVID-19 cases, of which 229,668²³ cases were registered by AMC alone. Unlike the trend at the national or the state level during first wave, where active cases peaked in the latter part of the year (October and September, 2020, respectively), active cases in Ahmedabad peaked in May 2020 with 5,681 active cases. The peak of second wave was nearly synchronised with the peak at state and national level.

TABLE 10 COVID-19 STATISTICS AT THE DISTRICT, STATE AND NATIONAL LEVELS

	Ahmedabad district	Gujarat state	India
Population (2011)	72,14,225	6,04,39,692	1,21,08,54,977
Phase-1 (March 2020 – January 2021)			
Cases (cumulative)	57,792	2,45,772	1,03,06,469
Cases per million (cumulative)	8,011	4,066	8,512
Deaths (cumulative)	2,251	4,309	1,49,255
Deaths per million (cumulative)	312	71	123
Cases recovered (cumulative)	52,632	231,900	99,05,570
Number of active cases	2,909	9,563	2,47,427
Number of active cases at peak	5,681 (May 25, 2020)	16,736 (Oct 4, 2020)	10,13,931 (Sept 18, 2020)
Number of tests	23,74,339	97,06,300	17,39,41,658
Tests per million population	3,29,119	1,60,595	1,43,652
Test positivity rate	2.4%	2.5%	5.9%
Case mortality rate	3.9%	1.8%	1.4%
Case recovery rate	91.1%	94.3%	96.1%
Phase-2 (January 2021- 1st June 2021)			
Cases (cumulative)	177,818	566,291	18,000,566
Cases per million (cumulative)	24,648	9,370	14,866
Deaths (cumulative)	1093	5,564	185,861
Deaths per million (cumulative)	152	92	153
Cases recovered (cumulative)	174,739	544,058	16,265,577
Number of active cases	4895	26,232	17,89,456

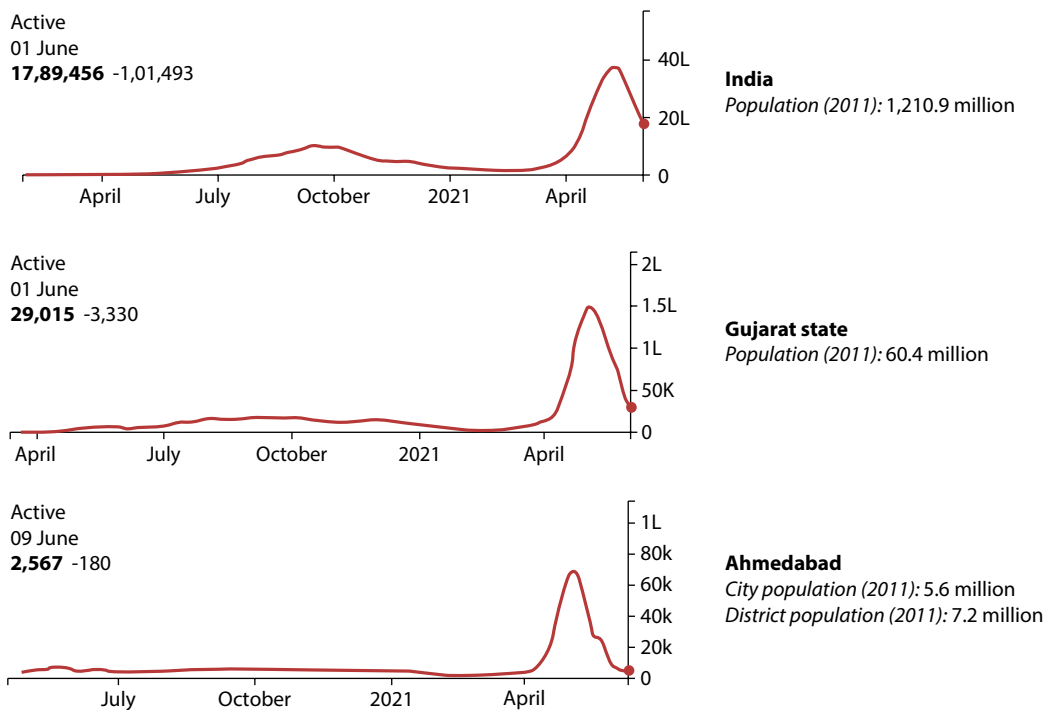
22 <https://covidindia.org/>

23 <https://ahmedabadcity.gov.in/portal/web?requestType=ApplicationRH&actionVal=loadCoronaRelatedDtIs&queryType=Select&screenId=114>

	Ahmedabad district	Gujarat state	India
Number of active cases at peak	68,430 (May 3, 2021)	148,297 (May 4, 2021)	37,19,192 (May 7, 2021)
Number of tests	182,153	12,220,142	176,115,672
Tests per million population	25,249	202,187	145,447
Test positivity rate	97.6%	4.6%	10.2%
Case mortality rate	0.6%	0.98%	1%
Case recovery rate	98.2%	96.1%	90.4%

Source: covid19india.org, Census 2011.

FIGURE 4 COVID-19 TREND AT NATIONAL, STATE AND DISTRICT LEVEL



Source: covid19india.org, Census 2011.

COVID-19 responsibilities within the Ahmedabad city

The roles and responsibilities of the local governments in Gujarat were defined under an addendum, which the Gujarat state issued on March 20, 2020, to the Gujarat Epidemic Diseases COVID-19 regulations, 2020, under the Epidemic Diseases Act, 1897. This regulation is to be in effect for the period of one year from the date of the original notification, which was issued on March 13, 2020.

The local governments, including AMC, were tasked with:

- Detection and quarantine of persons suspected with COVID-19 infections;
- Implementation of containment measures, not limited to;

- Sealing of the geographic area;
- Barring entry and exit of population from the containment area;
- Closure of schools, offices and banning of public gathering;
- Banning vehicular movement in the area;
- Initiating active and passive surveillance of COVID-19 cases;
- Hospital isolation of all cases;
- Designating any government/private building as a containment unit for isolation of cases;
- Staff of all government departments will be at the disposal for discharging the duty of containment measures; and
- Any other measure directed by Department of Health and Family Welfare.

The allocation of various tasks at the local level between AMC and the police department is captured below:

TABLE 11 COVID-19 RESPONSIBILITIES WITHIN THE AHMEDABAD CITY

Aspect of epidemic management	Responsible institution
Overall co-ordination	AMC
Surveillance and testing	AMC
Quarantine	AMC
Delineation of containment zones	AMC
Implementing social distancing	Police
Healthcare	AMC
IEC and awareness	AMC
Disinfection	AMC
Disposal of infected waste and corpses	AMC
Access to essentials	AMC

Source: COVID-19 Regulations 2020, media reports, consultations with local government officials.

Preparedness of the local government for COVID-19

Legal, regulatory and policy framework

The municipal legislation in Gujarat lays out the roles and responsibilities of local governments in relation to epidemic. Other legislation which cover the role of local governments at the state level with regards to disasters and public health include the Gujarat State Disaster Management Act, 2003, Gujarat Emergency Medical Services Act 2007, Gujarat Public Health Act, 2009 (GPH Act). The local governments in Gujarat were also assigned additional responsibilities such as overall co-ordination, delineating and implementing containment zones through the Gujarat Epidemic Diseases COVID-19 regulations 2020 under the Epidemic Diseases Act, 1897. While the COVID-19 regulations were initially released on March 13, 2020 it was through an addendum on March 20, 2020 that these responsibilities were assigned to local governments. It should be noted that the authority to co-ordinate with other agencies and undertaking

containment measures have been temporarily assigned to local governments for COVID-19 and does not apply to epidemics in general.

TABLE 12 ROLES ASSIGNED TO LOCAL GOVERNMENT UNDER THE LEGISLATIVE FRAMEWORK

Aspect of epidemic management	Legal mandate
Overall co-ordination	<ul style="list-style-type: none"> Gujarat Epidemic Diseases COVID-19 Regulations, 2020
Surveillance and testing	<ul style="list-style-type: none"> GPMC Act, GPH Act, Gujarat Epidemic Diseases COVID-19 Regulations, 2020
Quarantine of infected person at home or at institutional centers	<ul style="list-style-type: none"> GPMC Act, GPH Act, Gujarat Epidemic Diseases COVID-19 Regulations, 2020
Delineation of containment zones	<ul style="list-style-type: none"> Gujarat Epidemic Diseases COVID-19 Regulations, 2020
Healthcare provision	<ul style="list-style-type: none"> GPMC Act, GPH Act
Disinfection	<ul style="list-style-type: none"> GPMC Act
Disposal of infected waste and corpses	<ul style="list-style-type: none"> GPMC Act

Source: GPMC Act, CCMC Act, PH Act, PM Act, DM Act 2005, Epidemics Act 1897.

Organizational structure

The key departments within the local government from the point of view of managing epidemics are the health department, the SWM department and the zonal offices. However, roles to be played during epidemics such as delineation of containment zones and ensuring access to food and other essentials are not clearly mapped to any department. Although during COVID-19 these roles were played by the health department.

TABLE 13 ROLES ASSIGNED TO LOCAL GOVERNMENT UNDER THE LEGISLATIVE FRAMEWORK

Aspect of epidemic management	Legal mandate
Surveillance and testing	<ul style="list-style-type: none"> Epidemic Cell (health department), Malaria Cell (health department)
Quarantine of infected persons at home or at institutional centers	<ul style="list-style-type: none"> Health department
Healthcare provision	<ul style="list-style-type: none"> Health department
IEC and awareness	<ul style="list-style-type: none"> Epidemic Cell (health department)
Disinfection	<ul style="list-style-type: none"> Health department
Disposal of infected waste and corpses	<ul style="list-style-type: none"> SWM department and health department

Within AMC, the responsibility for preventing and managing epidemics lies with the health department, which has a dedicated Epidemic Prevention Cell. The activities of the health department are supervised by the Health and Solid Waste Committee and Hospital Committee. These committees are empowered to ask the Municipal Commissioner to present plans, estimates, statements and accounts of the respective works undertaken. These committees can also approve tenders of value up to INR 0.7 million and in exceptional cases can also enter into contracts of value up to INR 0.2 million.

BOX 7: RESPONSIBILITIES OF THE HEALTH AND SWM COMMITTEES

The Health and SWM Committee oversees the provision of following services concerning public health:

- Cleaning of public streets and roads;
- Sprinkling of water on streets and roads for cleaning purposes;
- Removal of waste from public streets and plots owned by the local government;
- Cleaning of public toilets and other public amenities;
- Construction and repairing of residential quarters for conservancy department staff of local government;
- Selling of compost and waste valuing more than INR 25,000 in accordance with the rules and regulations set forth by the local government;
- Facilities for maternity and child care;
- Provision of milk for pregnant women and children;
- Establishment of chemical and bacteriological laboratories for identification or confirmation of prevailing diseases or checking of water, food and drugs for maintaining public health;
- Construction of public baths, public washing areas and other facilities to maintain public health;
- Construction of distribution stations or processing dairies and farms for milk and milk products;
- Provision of ambulance services;
- Contribute to public fund for implementing relief works;
- Provide prizes for encouraging efficient registration of births and deaths within the local government;
- Provision of shelters for homeless and relief works for poor:
- Take steps for effective and efficient management of disasters occurring within the city;
- In case there are insufficient places for disposal of dead the committee can provide for the same within or outside the city or order closure of such places in consultation with the Municipal Commissioner;
- Applications pertaining to removal or partial closure of markets, slaughter houses or stock yards are to be put forth to this committee;
- Applications for procurement of equipment or vehicles for removal of waste are to be initially put forth in this committee. Based on the recommendations made by this committee, the applications are forwarded to the standing committee and local government for its approval;
- All other matters concerning public health and welfare which may or may not have been encountered by the committee till date;
- The scope of work of the Hospital Committee involves;
- Procurement and/or construction of hospitals and dispensaries for treatment/containment of patients suffering contagious diseases or are suspected to have a contagious disease, as well as take other measures necessary to provide treatment;
- Make arrangements for treatment of rabies and lunatics;
- Provide for institutions treating blind, deaf, dumb or persons with any other weaknesses or disabilities;
- Construct veterinary hospitals;
- Applications for provision of health cards for OPD patients are initially submitted to this committee;
- Matters concerning maintaining statistical data; and
- Applications for opening or extending units of hospitals are to be submitted to this committee.

The Health Department of AMC is responsible for provision of public health services within Ahmedabad. The departments involved in public health management and service provision in AMC limits have been detailed in the table below.

The Health Department of AMC is headed by the Medical Officer of Health (MOH) appointed by the local government, with prior approval of the state government. The MOH reports to the deputy commissioner overseeing the health aspect. The MOH is supported by health officers in each of the six zones of AMC, Health Flying Squad, Entomologists, Sanitation Superintendent in each zone, Sanitation Inspectors in each ward, Malaria Superintendent in each zone, Malaria Inspectors in each zone, sanitary sub-inspectors in each ward, vaccinators, food safety officer, analysts in public health laboratory, bacteriologists, Anganwadi workers and *safai kamdars*. The department had a workforce of 7,000 people in place before the onset of COVID-19 pandemic. However, the department has 516 posts sanctioned for class 1, 2 and 3 officers, of which 439 have been filled and 15% are vacant.

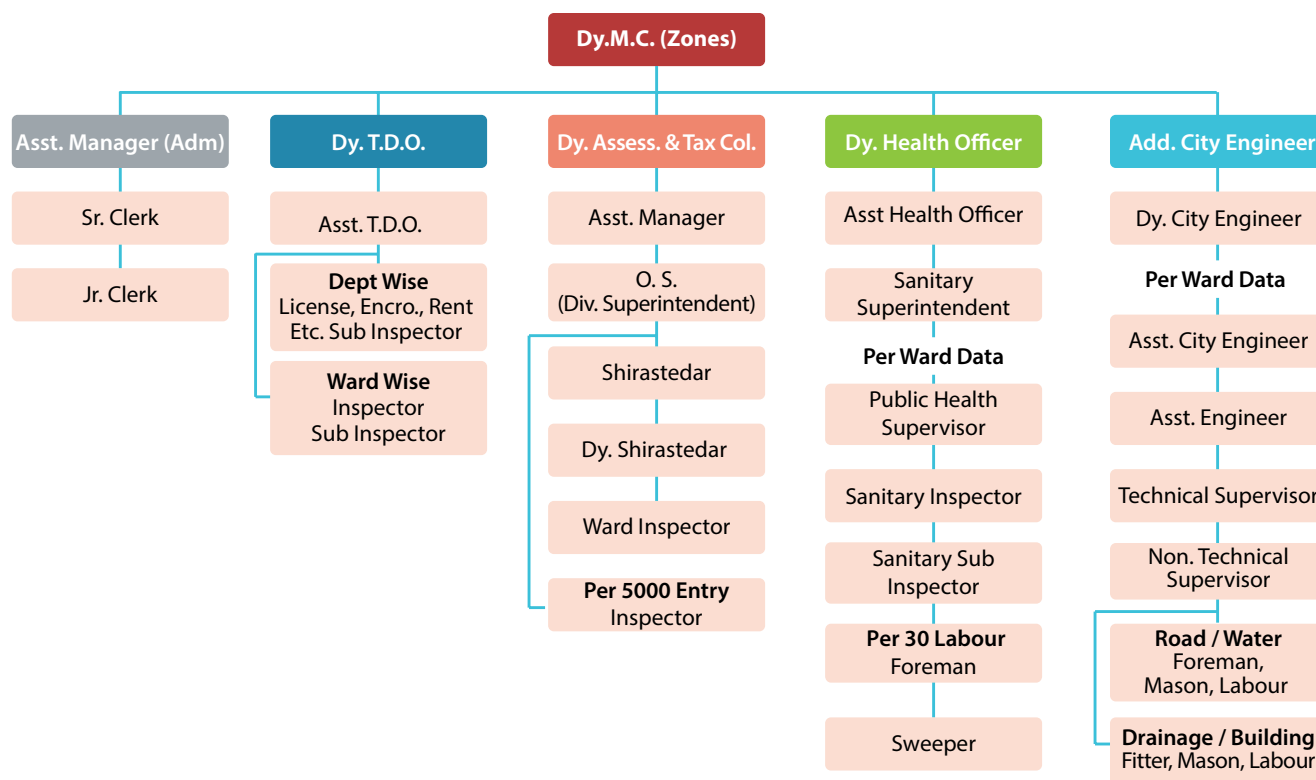
Department	Roles and responsibilities
Health Department, AMC	<ul style="list-style-type: none"> ▪ Management of urban health centers (UHCs), nursing & maternity homes, community health center, central medical stores, Anganwadis and 3 hospitals across all the wards; ▪ Undertake preventive measures for mitigating epidemics; ▪ Execute vaccination programs; ▪ Registration of birth and death; ▪ Provide licenses to shops/vendors selling food; ▪ Prevent adulteration of edible food; ▪ Take legal actions against hotel/hawker/vendor for selling non-hygienic food and water; ▪ Nursing home registration; ▪ Provide integrated child development services; ▪ Educating people for controlling dengue/mosquito breeding; ▪ Maintaining crematoriums and graveyards; and ▪ The department also collects zonal level reports on preventive measures in case of an epidemic.
Malaria Cell, (a wing of Health Department) AMC	<ul style="list-style-type: none"> ▪ Planning, implementation and monitoring of Urban Vector Borne Disease Control Program; ▪ Provide preventive and curative services for vector borne disease in alignment with program directives; ▪ Implement control measures for vector species; ▪ Promote community awareness, education and participation in eradicating such diseases; ▪ Conduct malaria fever surveillance in slum areas every 15 days; ▪ Entomological monitoring of vector species; ▪ Capacity building of staff; ▪ Ensure preparedness for outbreaks/epidemics; ▪ Diagnosis of malaria, dengue and chikungunya;

Department	Roles and responsibilities
	<ul style="list-style-type: none"> ▪ Treatment of malaria patients and management of dengue and chikungunya cases in general hospitals; ▪ Tackling mosquito nuisance in an area; and ▪ Collate and analyze data on prevalent vector borne diseases through data procured from public and private hospitals.
Epidemic Control Cell (a wing of Health Department), AMC	<ul style="list-style-type: none"> ▪ Collects epidemic related data from government and private hospitals, UHCs, CHC and maternity homes and prepares preventive action plan; ▪ Conduct survey of epidemic prone area to determine preventive action for curbing epidemic; ▪ Take water sample and conduct chlorine test in epidemic prone areas; ▪ Provides one medical van in each zone. Such vans also cover epidemic prone areas daily and provide treatment to the patients; and ▪ Anchor IEC activities for awareness concerning water and vector borne diseases.
Food department within Health Department of AMC	<ul style="list-style-type: none"> ▪ The donations related to provision of food to the needy and COVID-19 patients is handled by this department; ▪ The department also looks after provision of food in COVID-19 care, COVID-19 treatment and quarantine centers; and ▪ The department has entered into contracts with standard restaurants across the city and fixed the prices of the food being provided to the COVID-19 patients. However, the food is provided free of cost to the patients. These services have not been tendered out due to urgency in provision of service and hence standard restaurants such as Havmor and Honest have been provided with this contract to maintain hygiene and food quality standards.

The SWM department of AMC is responsible for monitoring of collection, transport, treatment and disposal of bio-medical waste collected from 64 units that include municipal hospitals, referral hospitals, maternity homes and urban health centers. The city has an incineration plant that disposes of 1.5 MT of biomedical waste daily. Two contractors have been appointed for collection, transport and disposal of biomedical waste. In the event of an epidemic, the SWM department would be responsible for managing potentially infected waste from people’s homes and hospitals.

AMC is organized into six zonal offices, which are headed by Deputy Municipal Commissioners. Each zonal office consists of an administrative department, town development office, assessment and tax collection department, health department and engineering department. The zones are further divided into wards, with 64 wards across the city. While the zonal offices are not formally tasked with disaster management activities, they, along with the ward offices, may be well-positioned to engage and assist the local community and also deliver cross-departmental interventions in the event of a crisis. The organizational structure of the zonal office is provided below:

ZONE LEVEL FUNCTION CHART



Planning framework

AMC is mandated to prepare a disaster management plan under the Gujarat State Disaster Management Act 2003 and public health plan under the Gujarat Public Health Act, 2009. The disaster management plan does not provide any specific guidance on dealing with epidemics. Also, no public health plan prepared by AMC is available in the public domain.

AMC also prepares plans for water- and vector-borne diseases, though these are not mandated by law, and are prepared under the national vector-borne disease control program (NVBDCP).

Masterplan

The land-use plan for Ahmedabad, prepared by AMC and AUDA, does not contain any proposals on disaster management or epidemics.

Disaster Management Plan

AMC, in accordance with the mandate of the Gujarat State Disaster Management Act 2003, has prepared a disaster management plan and revises it annually. The available Disaster Response Plan 2019 of AMC addresses preparedness and preventive measures for calamities such as floods, earthquakes, accidents, fire, chemical and industrial disasters, railway accidents and heatwave but fails to address epidemics.

Municipal bye-laws

AMC had prepared public health bye-laws in 2012 and amended them in 2015. While the bye-law did concentrate on public health engineering and SWM aspect of public health, not much emphasis was put

on healthcare facilities, healthcare infrastructure or disease outbreaks. The bye-law concentrates majorly on prevention of mosquito breeding by mandating public health guidelines to be followed in residencies and other buildings.

Other plans

The city annually prepares an action plan for mitigating water-borne and vector-borne diseases. The plan comprises details such as allocation of roles and responsibilities of each municipal department in addressing vector-borne/water-borne diseases, IEC activities to be undertaken/already undertaken, preventive steps taken/to be taken by AMC and availability of human resources for field work. However, financial planning of such activities has not been indicated in the plan.

Financing framework

The GPMC Act mandates local governments to make a provision in their annual budget every year by earmarking an expenditure not exceeding 10% of their income for provision of basic facilities that include but are not limited to medical aid. If the amount earmarked remains unutilized for a given year, it is carried forward to the next year.

As per the GPHA 2009, every local authority (including local governments) has to earmark not less than 30% of its income from all sources other than government grants for expenditure on advancement of public health in its local area. The state government provides various grants to local governments for provision of public health services/facilities through programs such as the National Urban Health Mission.

Responsiveness of local governments to COVID-19

The Gujarat government, under the Epidemic Diseases Act, 1897, notified the Gujarat Epidemic Diseases, COVID-19 Regulations, 2020 on March 13, 2020. Under these regulations, the District Disaster Management Committee headed by the district collector was authorized to formulate strategies to contain COVID-19 and implement them. Furthermore, all government and private hospitals in the city were required to report suspected cases of COVID-19 to the medical officer of health (MOH) of the local government. These regulations were later amended on March 20 to empower local governments to implement measures to contain the pandemic's spread.

Some of AMC's early measures were to ensure supply of food to persons who home quarantined so that they did not step out of their homes. A "Voluntary Family Quarantine" initiative was announced under which all essentials would be provided free of cost to a family that decides to join any person with travel history to COVID-19 infected places under home quarantine. It also started disinfection of their homes by mobilizing the resources of the Fire and Emergency Services department of AMC.

Response timeline

AMC's initiatives have been documented since February 2020.

Date	Actions	COVID case status (as on end of each month)
February 2020	<ul style="list-style-type: none"> ▪ First suspected COVID-19 case in Ambli area detected due to symptoms and referred by a private hospital; and ▪ Asarwa Civil Hospital declared a nodal center for COVID-19 treatment and a ward earmarked for quarantine purposes. 	<ul style="list-style-type: none"> ▪ Information not available
March 2020	<ul style="list-style-type: none"> ▪ AMC provides cooked food twice a day to about 4,000 persons under home quarantine, announces a "Voluntary Family Quarantine" initiative for people willing to join their family members under home quarantine and provides transport services for enabling doorstep delivery of vegetables to building societies every four days; ▪ AMC shuts pan shops to prevent spitting in public and increases the fine on spitting; and ▪ AMC disinfects exterior of homes of COVID-19 infected persons across the city. 	<ul style="list-style-type: none"> ▪ Information not available
April 2020	<ul style="list-style-type: none"> ▪ AMC adopts an enhanced testing, proactive detection, intensive surveillance and corona (EPIC) approach to manage COVID-19; ▪ Disinfection exercise extended to chawls, slums and other congested areas and three special drones acquired for disinfection in the dense walled city areas; ▪ Ward-level plans prepared for managing the pandemic ▪ AMC engaged with hotels, clubs and other institutions to donate food packets to slum dwellers; and ▪ AMC targets potential super-spreaders such as fruit and vegetable vendors, provision and grocery stores owners for daily screening and imposes fines for not wearing masks and stocking sanitizers for use by customers. 	<ul style="list-style-type: none"> ▪ Cumulative cases – 2777; ▪ Recovered cases – 263; and ▪ Deaths – 137.
May 2020	<ul style="list-style-type: none"> ▪ Door-to-door survey initiated for identifying potential COVID-19 patients and mobile testing vans deployed; ▪ Closure of grocery and vegetable shops announced with only the sale of milk and medicines permitted in stores; ▪ Rajiv Gupta, Additional Chief Secretary, Forest & Environment appointed by the state government as overall in-charge of activities to control the spread of COVID-19 in Ahmedabad; ▪ AMC announces that the cost of COVID-19 treatment for frontline workers would be borne by the local government, AC buses organized for transport of medical personnel through the Indian Medical Association; ▪ Media reports emerge of complaints by patients on facilities at the civil hospital; and ▪ AMC requisitions 42 private hospitals across the city for COVID-19 treatment and fixes rates for providing COVID-19 treatment; 	<ul style="list-style-type: none"> ▪ Cumulative cases – 12,180; ▪ Recovered cases – 6918; and ▪ Deaths – 842.

Date	Actions	COVID case status (as on end of each month)
June 2020	<ul style="list-style-type: none"> ▪ Teachers from municipal schools roped in for COVID-19 duties such as coordination between health workers and accompanying medical teams in COVID-19-prone areas. About 100 teachers deployed for such services. However, AMC faced criticism from teaching associations. Complaints of teachers not being provided with PPE kits were also highlighted; and ▪ Rapid antigen tests conducted at residential societies, religious places, banks and eight entry points of the city and municipal schools. 	<ul style="list-style-type: none"> ▪ Cumulative cases – 20,913; ▪ Recovered cases – 15,968; and ▪ Deaths – 1441.
July 2020	<ul style="list-style-type: none"> ▪ The Ahmedabad Medical Association files a plea in the Gujarat High Court to direct the state government to ramp up testing in the city due to high mortality rates being recorded; ▪ AMC de-notified four private hospitals after noticing a high case fatality ratio and lack of beds; ▪ AMC adopts a micro-containment zone strategy; and ▪ Dr. Swaminathan, Chief Scientist at WHO, appreciated AMC's strategy of using Arogya Setu data for focused surveillance and testing as well as reflected interest in 104 helpline, screening and testing vans and the PP model of roping in private hospitals for COVID-19 treatment. 	<ul style="list-style-type: none"> ▪ Cumulative cases – 26,341; ▪ Recovered cases – 21,356; and ▪ Deaths – 1,593.
August 2020	<ul style="list-style-type: none"> ▪ AMC initiates fire safety audit of designated COVID-19 hospitals following a fire breakout in a private hospital in the city that resulted in death of eight COVID-19 patients; ▪ Private companies in the city employing more than 30 persons were required to nominate a COVID-19 coordinator; ▪ In addition to fining persons for not wearing masks, AMC also provided them with a packet of masks; and ▪ AMC starts the process of de-notifying COVID-19 hospitals and decides on reducing the number of reserved beds for COVID-19 treatment in the city. 	<ul style="list-style-type: none"> ▪ Cumulative cases – 31,519; ▪ Recovered cases – 26,371; and ▪ Deaths – 1,715.
September 2020	<ul style="list-style-type: none"> ▪ AMC mandates all housing societies, apartments and colonies to have a COVID-19 coordinator; ▪ AMC recruited 152 people as support staff in its medical department for scaling up testing at UHCs and 444 vacancies were announced in June for physicians, paramedical staff and lab technicians to meet the staff shortfall; ▪ AMC initiates a drive to conduct rapid antigen tests at private establishments and 100 kiosks are set up across the city for conducting rapid antigen tests free of cost; and ▪ AMC orders all shops, eateries and markets at 27 locations within the city to be closed from 10 pm to 6 am. 	<ul style="list-style-type: none"> ▪ Cumulative cases – 36,848; ▪ Recovered cases – 30,848; and ▪ Deaths – 1,812.

Date	Actions	COVID case status (as on end of each month)
October 2020	<ul style="list-style-type: none"> AMC introduces the Vadil Sukhakari Seva program for prevention of COVID-19 cases among residents with comorbid conditions and senior citizens 	<ul style="list-style-type: none"> Cumulative cases – 42,514; Recovered cases – 37,334; and Deaths – 1,902.
November 2020	<ul style="list-style-type: none"> Night curfew imposed in the city from 9 pm to 6 am amid a sudden spike in COVID-19 cases after the festive season; Due to a surge in COVID-19 cases, AMC started augmenting the existing bed capacity in private (150 additional beds requisitioned in private hospitals) and government hospitals, doubling testing kiosks, making available 104 helpline services for COVID-19 emergencies; AMC issued an advisory to COVID-19 patients under home isolation asking them not to visit UHCs unless recommended by Sanjvani Rath doctors who are tasked with monitoring these patients; and By polls held for eight Gujarat legislative assembly positions. 	<ul style="list-style-type: none"> Cumulative cases – 50,077; Recovered cases – 44,839; and Deaths – 2,060.
December 2020	<ul style="list-style-type: none"> AMC commenced a door-to-door survey for COVID-19 vaccination with a taskforce of 1 million and a vaccination drive planned across 300 spots in the city by approximately 380 vaccinators. AMC launched an online facility for people of priority groups (healthcare workers, frontline workers, people > 50 years' age and people <50 years suffering from comorbid conditions) to register for COVID-19 vaccine; In addition to 100 ice-lined refrigerators that can store 150 vials, AMC has procured 20 more refrigerators and plans to engage private agencies for storage of vaccines; and AMC decides to reduce the number of designated private hospitals for COVID-19 treatment. 	<ul style="list-style-type: none"> Cumulative cases – 57,634; Recovered cases – 52,475; and Deaths – 2,249.

Source: Media reports; www.covid19indi.org.

Organizational structure of local government for mitigating COVID-19 pandemic

The state government appointed the Additional Chief Secretary, Forest & Environment and Managing Director of Sardar Sarovar Narmada Nigam Ltd. as overall in-charge of activities to control the spread of COVID-19 in Ahmedabad city on May 6, 2020. The official has to specifically monitor AMC's COVID-19 management.

The state government also deputed two deputy municipal commissioners over and above the existing eight deputy municipal commissioners within AMC for responding to the COVID-19 pandemic. Each deputy municipal commissioner supervises and monitors multiple aspects of COVID-19 pandemic management. The deputy municipal commissioners will report to the Municipal Commissioner on the progress of each pandemic response activity.

TABLE 14 ALLOCATION OF RESPONSIBILITIES TO KEY OFFICIALS WITHIN AMC

S. No.	Appointed Deputy Municipal Commissioner	Roles and responsibilities
1	Deputy Commissioner for AMC's North West Zone (officer on special duty) (retired IAS officer appointed by the state government)	Patient admission, treatment and care in all COVID-19 designated private hospitals in the North West Zone
2	Deputy Commissioner of West Zone (appointed by the state government during the pandemic)	Patient admission, treatment and care in all the COVID-19 designated private hospitals in the West zone. Samras Hostel COVID-19 Care Center, Gota Avas COVID-19 Care Center, Gujarat Cancer Soci Naroda Coordination for starting a COVID-19 Care Center
3	Deputy Commissioner	Fire brigade, communication, PR, disaster management, security
4	Deputy Commissioner Health	Hospitals, medical colleges, family welfare, physiotherapy, I.C.D.S., central medical stores, requisition and monitoring of all private hospitals, Checking of all COVID-19 designated private hospitals, patient admission, billing, possession of bed, online data entry and coordination with zonal officials
5	Deputy Municipal Commissioner East Zone	Management of each COVID-19 related activity within the zone
6	Deputy Municipal Commissioner South West Zone	Management of each COVID-19 related activity within the zone
7	Deputy Municipal Commissioner Central Zone	Water supply and sewerage, Central laboratory
8	Deputy Municipal Commissioner, North Zone	Right to information (RTI) & public grievance redress
9	Deputy Municipal Commissioner	AMTS, AJL administration
10	Deputy Municipal Commissioner	E-governance/traffic engineering

Source: <https://ahmedabadcity.gov.in/>

The zonal and ward level staff of AMC were roped in during the lockdown for carrying out non-healthcare related works over and above their existing mandates and roles. Moreover, municipal school teachers were looped in by AMC for COVID-19 duties such as coordination between health workers and accompanying medical teams in COVID-19-prone areas. About 100 teachers were deployed for such services during Unlock 1.0 (June 3, 2020).

The government and private medical as well as paramedical colleges were notified by AMC to mandatorily involve their students in COVID-19 duties. These students were prominently involved in conducting rapid antigen tests at kiosks set up by AMC within the city.

The SWM Department handled collection, transportation, treatment and disposal of bio-medical waste generated by home quarantined patients.

In December 2020, AMC commenced a door-to-door survey for COVID-19 vaccination with a taskforce of 1 million. The taskforce was divided into 2,000 teams and included auxiliary nurse midwife (ANM) workers, Anganwadi and accredited social health activist (ASHA) workers and government teachers²⁴.

24 <https://indianexpress.com/article/cities/ahmedabad/in-ahmedabad-over-7l-people-register-for-covid-vaccine-7127089/>

AMC's initiatives

AMC has engaged various stakeholders (involved reputed local restaurants for food supply) and leveraged technology (mobile app for home quarantine monitoring, drones for disinfection) to reinforce its response and overcome resource constraints. On the other hand, local governments have also adopted a citizen-centric approach towards testing, healthcare and containment to enable local communities to manage the pandemic (schemes such as Voluntary Family Quarantine initiative and Vadil Sukhakari Seva for senior citizens). A more exhaustive list of AMC's initiatives across the spectrum of epidemic management have been documented below.

Public health interventions

▪ Screening and testing

- AMC started screening of passengers returning from China, Singapore, Thailand and other corona-affected countries in February at the Sardar Vallabhbhai Patel International Airport;
- AMC introduced a "Voluntary Family Quarantine" initiative in March to provide all amenities free of cost to a family that decides to join persons with travel history to pandemic-affected areas living in isolation at their residencies;
- In April, AMC identified 500 potential super spreaders (included vegetable vendors, grocery stores and hawkers) and screened them daily;
- By mid-April, AMC had roped in private testing laboratories for accelerating the testing process;
- 700 teams of health workers of AMC were deployed in early May with thermal guns to conduct door-to-door surveys on a daily basis for identifying potential COVID-19 patients;
- 7 mobile testing vans were deployed for each zone, along with 30 on-field teams for surveillance in May
- AMC launched Dhanvantri Raths – medical vans converted into mobile clinics for on-field medical testing and diagnosis in May. Each van comprises a doctor, a nurse and a paramedic. Apart from COVID-19 rapid antigen test, AMC also conducts tests for malaria and dengue. 120 such vehicles were in operation till July;
- Rapid antigen tests were conducted at residential societies, religious places, banks and eight entry points of the city and municipal schools by the end of June;
- AMC initiated a drive to conduct rapid antigen tests at private establishments for covering the office-going population in September and 966 persons were reported COVID-19 positive under this drive. Overall 67,845 tests were conducted in this drive in 7,810 offices; and
- AMC introduced 100 kiosks across the city for conducting rapid antigen tests free of cost.

▪ Disinfection of property, waste and corpses

- The Fire and Emergency Services department of AMC was responsible for spraying disinfectant across the city. Disinfectants were sprayed at high pressure on the exterior of houses of COVID-19 positive patients by AMC, which advised families to use disinfectants to clean the interiors of their houses;
- In early April, sodium hypochlorite was sprayed by AMC across chawls and densely populated areas within AMC. Under this initiative, 691 slum clusters that account for 16% of the city's population were identified based on a slum atlas prepared by AMC in 2014 and were disinfected. 34 fire tenders were deployed for the purpose;
- For reaching out to areas wherein fire fighters cannot reach for disinfection, AMC's Fire and Emergency Services acquired three special drones for sprinkling disinfectants in quarantined areas, especially in the walled city of Ahmedabad;
- The biomedical waste generated from home-quarantined patients and COVID-19 quarantine centers is collected by the SWM Department and managed and disposed in accordance with the guidelines provided by the state government; and
- Corpses are to be disposed based on COVID-19 dead body management guidelines provided by the national and the state government. The local government staff has to wear surgical masks, gloves and protection suit while disposing dead bodies. Bodies are buried in a nine feet deep pit (three feet more than the usual depth) covered in a protective sheet if such a cremation process is applicable. PPE kits are to be worn by AMC employees burning the COVID-19-prone dead bodies.

▪ **Non-pharmaceutical interventions including social distancing**

- In February, Asarwa Civil Hospital was declared a nodal center for COVID-19 treatment and a ward was earmarked for quarantining patients after the first suspected case of COVID-19 was detected in the AMC region;
- AMC announced the closure of all pan shops in late March to prevent spitting in public and increased the fine for spitting on roads from INR 500 to INR 1,000;
- The Municipal Commissioner of AMC initiated and prepared ward wise plans for mitigating challenges due to the lockdown;
- AMC identified fruit and vegetable vendors and provision and grocery stores as super spreaders and imposed fines on vendors for not wearing masks and providing hand sanitizers to customers;
- In early May, five bridges connecting eastern and western Ahmedabad were closed due to rising cases in central and south zone of AMC;
- On May 6, AMC ordered opening of all private clinics, nursing homes and hospitals within the next 48 hours. AMC announced cancellation of licenses for doctors who did not abide by the notice;
- AMC requisitioned 42 private hospitals and fixed rates for private and AMC quota beds in private hospitals;
- AMC banned cash-on-delivery option for grocery and food items as well as mandated delivery staff to install Arogya Setu App;
- AMC adopted a micro containment zone strategy for controlling the increasing number of cases. These micro-containment zones comprise small residential localities in wards reporting high COVID-19 cases instead of containment zones that cover the entire ward;
- The companies in AMC limits employing more than 30 people were told in August to nominate a COVID-19 coordinator who ensured that employees wear masks and follow social distancing rules. In case a COVID-19 positive case is reported in these companies, the coordinator has to provide a list of persons with whom the infected person was in contact. Violators of these rules are liable for penalty and punishment under IPC section 188 and 270 and Section 3 of the Epidemic Diseases Act;
- AMC provided a packet of five masks to persons getting fined for not wearing masks. A fine of INR 1,000 is levied for not wearing masks;
- In September, AMC mandated all housing societies, apartments and colonies to have a COVID-19 coordinator following positive results of the last intervention of appointing COVID-19 coordinators in offices/institutions/commercial/industrial units; and
- AMC restricted timing of shops selling essentials in 10 containment zones from 8 am to 1 pm. It also stopped home delivery and wholesale business of vegetable and fruit markets in containment zones.

▪ **Healthcare provision**

- AMC has four hospitals under its purview, namely Civil Hospital, SVP Hospital, Shardaben Hospital and LG Hospital. Of these four hospitals, Civil Hospital and SVP Hospital are being used for COVID-19 treatment;
- There are 80 primary health centers (PHC) within Ahmedabad city. The staff members of PHCs include professionals such as medical officers, para-medics and pharmacists. PHCs are currently conducting COVID-19 tests. If a patient tests positive for COVID-19 from these PHCs, the reports of the patient are shared with AMC hospitals providing COVID-19 treatment;
- In the initial stages of the pandemic, only 10 out of 3,000 private hospitals in Ahmedabad agreed to be COVID-19 treatment/care centers. However, as on November, 80 private hospitals are involved in providing COVID-19 treatment/care services;
- The total number of hospital beds available within AMC limits is 8,000 of which private hospitals account for 4,000 beds;
- As reported by AMC, about 80-90% patients who tested positive for COVID-19 are asymptomatic. Such patients are home quarantined. A team of paramedics monitors such patients at their home every alternate day. The team monitors at least the patient's blood pressure, oxygen levels and temperature. In case of any abnormalities in routine check-ups, the patient is shifted to a hospital by the team. As on November 2020, 750 such teams were operational within AMC limits; and
- AMC has initiated the "104 facility" wherein about 150 vehicles have been deployed for testing and regular checkup of residents who are unable or cannot go out for tests and COVID-19 checkups such as elderly patients, pregnant women, etc. The vehicles providing 104 facility have been hired on contract.

- Under its “Dhanvantari” scheme, AMC provides COVID-19 care and testing services in slums. Under this scheme, a team comprising a medical officer and a laboratory technician are deployed in these areas for conducting tests and providing medicines at the patient’s step;
- AMC also de-notified some private hospitals after reports of a high case fatality ratio and lack of beds surfaced;
- AMC limits are divided into seven zones. Each zone has a control room that tracks COVID-19 related activities within the zone and transfers the information to the central control room. These reports are shared with respective departments for further action;
- The treatment costs for COVID-19 were regulated by AMC throughout the pandemic commencing from June. In December, the treatment cost was reduced from INR 9000- INR 21,800 per day to INR 8,100 – INR 17,500 per day in consultation with the Ahmedabad Hospital and Nursing Homes Association (AHNA) and the Ahmedabad Medical Association (AMA). These costs do not include the cost of medicines, special doctor visit fee, specialized lab tests and dialysis but includes two meals, breakfast, evening tea and snacks; and
- In December, AMC reduced bed charges for 50% quota of its beds in private hospitals by 10%. The charges fell from INR 720-11,300 to INR 605 to INR 10,100.

IEC

▪ **General communication**

- AMC has developed a portal on its website that provides details on the number of cases reported, number of active cases and number of deaths within AMC limits due to COVID-19. The notifications issued by AMC on micro-containment zones or the COVID-19 situation are uploaded on the website.

▪ **For COVID-19 testing, healthcare and sanitization**

- The information, education, communication and awareness program related to COVID-19 is implemented by the Publicity Department of AMC;
- AMC has publicized its general helpline number for COVID-19 and helpline numbers for specialized services under its 104 facility and Vadil Sukhakari scheme in local newspapers, on its website as well as through public hoardings and advertisements; and
- Details on availability of beds in designated private hospitals are made available on the website of the Ahmedabad Hospitals & Nursing Homes Association (AHNA).

▪ **For essential services**

- AMC makes announcements about availability and provision of essential services through local newspapers and press conferences.

Human and financial resource management

▪ **Human resource management**

- Students belonging to any year of their doctoral/paramedical course are being deployed by AMC to address the manpower requirement of health workers. Moreover, municipal school teachers as well as zonal and ward level staff of AMC have been deployed for COVID-19 related activities. The involvement of AMC’s zonal and ward level staff has receded compared with their involvement during the lockdown. The staff involved in provision of essential services such as water supply, sewerage and SWM have been monitoring these services through the lockdown, along with managing COVID-19 related duties allotted to them;
- AMC monitored home quarantined patients through a GPS-enabled mobile app wherein the patient has to mark his/her attendance thrice a day, along with proof of him/her staying at home. The application immediately sends a notification to AMC control room in case a patient moves away from his/her house. This also reduced the burden of allocating a dedicated team to ensure isolation of home quarantined patients;
- AMC announced on May 8 that the cost of COVID-19 treatment for COVID-19 warriors (i.e., doctors, nurses or any class III or class IV employees of AMC or even police). Home quarantine facility will be offered to them initially, if not, they will be shifted to four or five star hotels. AMC will bear the expenses of their treatment;
- AMC also announced that it would provide doctors and equivalent staff INR 25,000, nursing staff and equivalent staff INR 15,000 and laboratory technicians and other supporting paramedical staff INR 10,000 as financial compensation;
- In September, AMC announced 444 vacancies for physicians, paramedical staff and lab technicians. In the same month, it hired about 152 support staff in the medical department on a three-month contract and fixed pay for scaling up testing at UHCs;

- Health workers working with AMC are being paid INR 150 per day and medical students are being paid INR 500 per day for the services provided by them during this pandemic;
 - AMC provided two to three days leave to health workers every 15 days in a staggered manner to ensure physical and mental well-being of health workers, along with ensuring continuity in the service provision;
 - AMC organized training workshops towards the end of December for representatives of private and government hospitals. Local government's health officers and medical superintendents of government hospitals conducted these workshops. Moreover, 20 heads of AMC's departments including SWM, e-governance, malaria, health, publicity estate, school board, tax, integrated child development and urban community development have been imparted training for COVID-19 vaccination. Zonal level officials of AMC from the health department were also trained, along with 203 health staff from UHCs, CHC medical officers and supervisors. AMC trained 531 vaccinators as well as 4,358 supporting staff and 88 pharmacists as cold chain handlers; and
 - AMC launched an online facility for people of priority groups (healthcare workers, frontline workers, people above 50 years and people less than 50 years but suffering from comorbid conditions) to register for COVID-19 vaccines towards the end of December. Apart from online registration, AMC has adopted offline methods such as door-to-door surveys and registration at UHCs.
- **Financial management**
 - Until November 2020, AMC spent about INR 6 billion on managing the COVID-19 pandemic. Of the total expenditure on the pandemic related activities, INR 2.5 billion was provided as a grant from the state government to AMC.
 - **Other resources**
 - The private hospitals and private laboratories were roped in at an early stage by AMC for scaling up testing and treatment facilities; and
 - 25 AC buses were allocated to the Indian Medical Association for facilitating movement of medical and para-medical staff of private medical facilities designated to treat COVID-19 patients in the city.

Ensuring access to food, medicines and other essentials

- **Access to food & essentials during the lockdown**
 - In March, AMC started providing cooked food parcels to home quarantined patients twice a day so that they don't have to step out to get essentials. AMC's Health Department procured 3,500 food parcels twice a day from identified caterers or popular food chains across the city. Until March 26, 3,500 of the 4000 home quarantined patients received food parcels everyday through this initiative; and
 - AMC provided transportation for more than 100 kg vegetables every four days commencing from the end of March. The societies were asked to nominate a representative who can collect the vegetables. This was an initiative to ensure adherence to social distancing norms.
- **Provision to subsidize/provide free food & other essentials for urban poor and other vulnerable people**
 - AMC prevented about 4,000 workers from leaving the city by ensuring their accommodation and food supply immediately after the lockdown;
 - About 50,000 food packets donated by various hotels/clubs/institutions in the city were supplied daily by AMC to slum dwellers from April;
 - Doctors above 65 years of age were exempted from compulsory opening of clinics and services on May 13 due to the high risk of virus contraction among elderly;
 - AMC introduced the Vadil Sukhakari Seva program for prevention of COVID-19 among residents with comorbid conditions and senior citizens towards the end of October. Three paramedical workers checked the health condition of targets by visiting them every 15 days. The scheme includes monitoring BP, oxygen levels, pulse rate and blood sugar levels. 100 teams have been built to cover 2,000 people every day. A phone-based app has been developed, along with GPS tracking, to track their health. The workers also provide zinc, vitamin C tablets, ayurvedic and homeopathic prophylactics free of cost to senior citizens for boosting their immunity. Based on a household survey in 21 wards with greater incidence of COVID-19, AMC identified 30,000 senior citizens as beneficiaries under this scheme; and
 - The Health Department has entered into contracts with standard restaurants across the city and fixed the prices for food provided to COVID-19 patients. However, the food is provided free of cost to patients. These services have not been tendered out due to urgency in provision of services. Hence, standard restaurants such as Havmor and Honest have been provided contracts to ensure hygiene and food quality standards.

Annexure-3: Case of Chennai, Tamil Nadu

Introduction

Chennai is the capital of Tamil Nadu. It had a population of 4.6 million as of 2011. Located along the Bay of Bengal with a 43-km coastline, Chennai often faces natural and man-made disasters. The city is barely at an elevation of 2 m above sea level making it prone to flooding. A city-level disaster management plan was prepared by the Greater Chennai Corporation (GCC) in 2017 to provide specific guidelines of prevention, preparedness and mitigation during particular disasters such as earthquakes, cyclones and tsunami.

COVID-19 trend and indicators

Tamil Nadu has been among the top five states in India for most number of COVID-19 cases since April and currently ranks 4th. In 2020, the active cases of COVID-19 in Chennai trended down since July, with a few minor peaks during August-October. Whereas, the second major peak in 2021, occurred nearly in synchronization with the state and the national peaks for COVID-19 cases. Some of the health indicators for COVID-19 in Chennai are as follows:

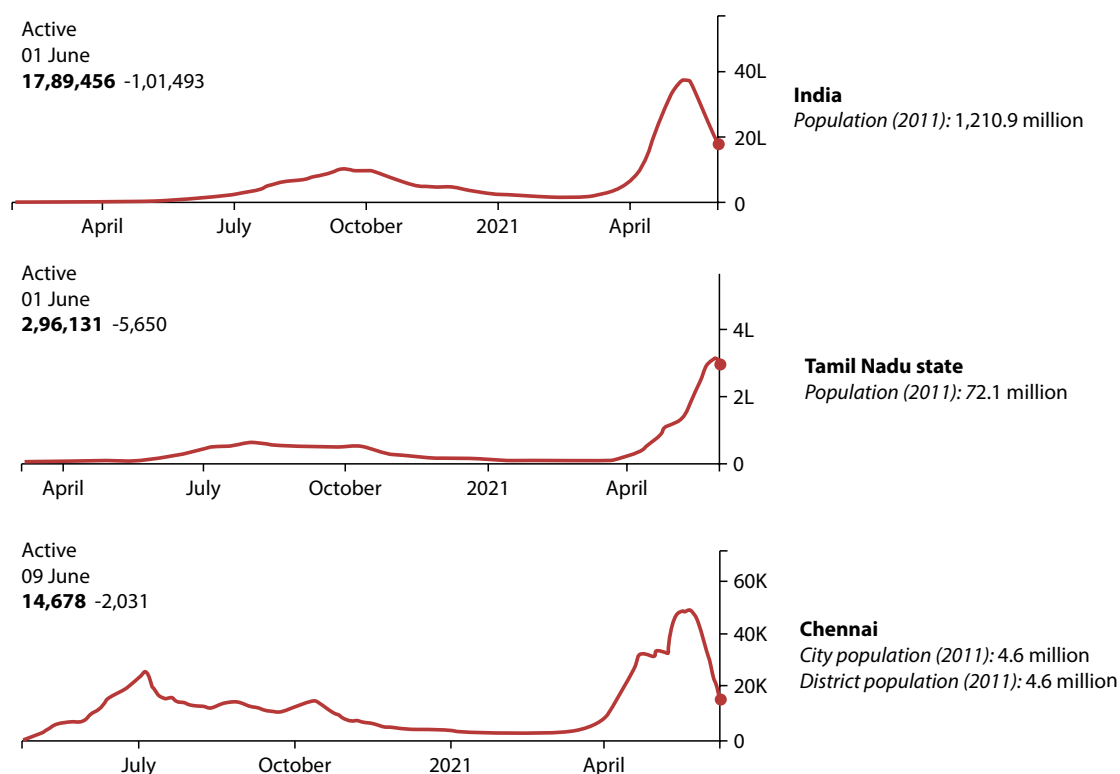
TABLE 15 COVID-19 STATISTICS AT THE DISTRICT, STATE AND NATIONAL LEVELS

	Chennai district	Tamil Nadu state	India
Population (2011)	71,00,000	7,21,47,030	1,21,08,54,977
Phase-1 (March 2020- Jan 2021)			
Cases (cumulative)	2,25,758	8,18,935	1,03,06,469
Cases per million (cumulative)	31,797	11,351	8,512
Deaths (cumulative)	4,011	12,135	1,49,255
Deaths per million (cumulative)	565	168	123
Cases recovered (cumulative)	2,18,882	7,98,420	99,05,570
Number of active cases	2,531	8,380	2,47,427
Number of active cases at peak	24,894 (July 5, 2020)	57,959 (July 30, 2020)	10,13,93 (Sept 18, 2020)
Number of tests	23,66,525	1,42,58,645	17,39,41,658
Tests per million population	3,33,314	1,97,633	1,43,652
Test positivity rate	9.5%	5.7%	5.9%
Case mortality rate	1.8%	1.5%	1.4%
Recovery rate	96.9%	97.5%	96.1%
Phase-2 (Jan 2021- 1st June 2021)			
Cases (cumulative)	2,81,179	13,04,094	18,000,566
Cases per million (cumulative)	39,602	18,076	14,866
Deaths (cumulative)	3,134	12,587	185,861

	Chennai district	Tamil Nadu state	India
Deaths per million (cumulative)	441	174	153
Cases recovered (cumulative)	2,53,304	10,03,756	16,265,577
Number of active cases	32,069	2,96,131	17,89,456
Number of active cases at peak	49,236 (May 22, 2021)	3,13,048 (May 27, 2021)	37,19,192 (May 7, 2021)
Number of tests	3,01,252	1,35,83,867	176,115,672
Tests per million population	42,430	1,88,280	145,447
Test positivity rate	93.3%	9.6%	10.2%
Case mortality rate	1.1%	0.9%	1%
Recovery rate	90.1%	76.9%	90.4%

Source: covid19india.org, Census 2011.

FIGURE 5 COVID-19 TREND AT NATIONAL, STATE AND DISTRICT LEVELS



Source: covid19india.org, Census 2011.

COVID-19 responsibilities within Chennai

GCC was tasked with the overall coordination and management of the pandemic. It was also responsible for most activities pertaining to management of COVID-19, except for enforcing social distancing which was the police's responsibility.

TABLE 16 COVID-19 TASKS

Aspect of epidemic management	Responsible institution
Overall coordination	GCC
Surveillance and testing	GCC
Quarantine	GCC
Delineation of containment zones	GCC
Implementing social distancing	Police
Healthcare	GCC
IEC and awareness	GCC
Disinfection	GCC
Disposal of infected waste and corpses	GCC
Access to essentials	GCC

Source: Media reports, consultation with local government officials.

Local government's pandemic preparedness

Legal, regulatory and policy framework

The Chennai City Municipal Corporation (CCMC) Act and the Tamil Nadu Public Health Act assign responsibilities to the local authorities with provisions for prevention of infection; the latter includes provisions of notification and treatment of infectious diseases. Provisions related to appointment of health officers, obligation of medical practitioners to report suspected outbreak of an infectious disease, prohibiting infected persons in public places, use public conveyance or carry out the occupation, prohibiting use of library books are some of the common provisions in both the acts.

Under the Tamil Nadu State Disaster Management Plan, 2016 GCC is identified as the agency responsible for leading and coordinating response in the event of a disaster. Further, the Tamil Nadu COVID-19 Regulations, 2020 issued under the Epidemic Diseases Act, 1897 also assign the responsibility of collating information of people who have been suspected to be infected with COVID-19 from all hospitals to the city health officer. There however is no legal or regulatory mandate for GCC to perform tasks such as delineating and implementing containment zones and securing access to food and other essentials.

TABLE 17 ROLES ASSIGNED TO LOCAL GOVERNMENT UNDER THE LEGISLATIVE FRAMEWORK

Aspect of epidemic management	Legal mandate
Overall coordination	▪ TNSDMP-2016
Surveillance and testing	▪ PH Act, TNCR, 2020
Quarantine of infected person at home or at institutional centers	▪ CCMC Act ▪ PH Act
Delineation of containment zones	▪ No provision
Implementing social distancing	▪ PH Act
Healthcare provision	▪ CCMC Act ▪ PH Act
IEC and awareness	▪ No provision
Disinfection	▪ CCMC Act ▪ PH Act
Disposal of infected waste and corpses	▪ CCMC Act ▪ PH Act
Access to essentials	▪ No provision

Source: CCMC Act, PH Act, PM Act, DM Act 2005, Epidemics Act 1897.

Organizational structure

GCC's health department is responsible for various activities including provision of primary healthcare, hospital for communicable diseases, laboratory services, providing control of communicable and non-communicable diseases, and vector control. The health department is responsible for managing epidemics. The department comprises the Joint Commissioner (Health), Health Education Officer, City Health Officer, medical officers along with sanitary inspectors, divisional health officers.

Additionally, it is responsible for provision of food through the 407 'Amma Unnavagam' to the poor and needy at a minimal price which was waved off during the COVID-19 lockdown. This department also provides AYUSH clinics and responsibilities for providing shelter to urban poor.

Some of the other responsibilities of the health department are to provide SWM, implement national/state health programs, provision of veterinary healthcare, issue of birth and death certificates, sanitation of public areas, and to enforce legislations such as the Public Health Act and CCMC Act against offenders who cause public health-related nuisance.

They also have a separate IEC cell at the GCC headquarters, which helps conduct IEC programs in educational institutions, slums, public places, companies, general public, etc. providing audio visual aids to prevent and

control communicable and non-communicable diseases. Further, the IEC cell carries out environmental sanitation programs such as the 'Clean Chennai' program.

GCC's disaster management cell is responsible for tackling flood-related problems. In order to be prepared for the monsoon, all the city drains are desilted and obstructions removed as a precautionary measure. Nodal and zonal officers are identified and vested with adequate powers to handle emergencies. Apart from this, relief centers are identified for providing food and other help, and shifting affected people to the centers. This involves coordination between all the agencies such as police, fire and rescue services, Metropolitan Transport Corporation, Chennai Metropolitan Water Supply and Sewerage Board, district administration, health facilities, the Army and the Navy who are alerted in advance.

Planning framework

The Chennai Metropolitan Development Authority (CMDA) is tasked with the preparation of the land-use masterplan under the Tamil Nadu Town and Country Planning Act, 1971. GCC is the nodal agency for disaster management in Chennai district under the State Disaster Management Plan and is required to prepare disaster management plans under the Disaster Management Act, 2005.

Land-use plan

CMDA's land-use masterplan includes a section on disaster management. However, it neither covers epidemics nor proposals for augmenting healthcare infrastructure.

Disaster management plan

The city-level disaster management plan was prepared by GCC in 2017 for providing guidelines to all the stakeholders and line departments for various phases such as non-disaster, pre-disaster, during-disaster and after-disaster. Though this plan identifies epidemic-related disaster as a type, there is no detailed guidance in this document for mitigation of, preparedness for and response to this type of disaster. Although healthcare provision, communication, food and relief measures, which are general for most disasters, are dealt with, the plan focuses on disasters such as earthquake, cyclones, tsunami and industrial catastrophe.

Financing framework

The CCMC Act, 1919 has a provision to allow the use of the municipal fund for the provision of public health related to construction of hospitals, dispensaries and temporary accommodation, hiring of additional staff and training during the spread of infectious diseases. GCC's budget neither contains provisions for contingencies nor any head for disaster preparedness.

Local government's responsiveness to COVID-19

Response timeline

GCC's response since March 2020 is documented below.

Date	Activities	COVID statistics at end of each month
March 2020	<ul style="list-style-type: none"> Close beaches, parks, open spaces; and Embarked on a mass disinfection drive with plans to launch four drones for disinfection of congested areas in the city. 	Information not available
April 2020	<ul style="list-style-type: none"> Released a list of shops that deliver essential items at the doorstep, announced the launch of 7,000 mobile outlets to vend groceries and vegetables and also free food at Amma canteens; and Launched COVID-19-monitoring app and door-to-door surveillance for suspect cases. 	<ul style="list-style-type: none"> Cumulative cases – 772; Recovered cases – 210; and Deaths – 15.
May 2020	<ul style="list-style-type: none"> Set up fever camps in the city; and Started work to set up a large COVID-19 care center (CCC) in Kesava Pillai Park, Pulianthope. 	<ul style="list-style-type: none"> Cumulative cases – 14,799; Recovered cases – 7,891; and Deaths – 132.
June 2020	<ul style="list-style-type: none"> Announced micro plan for pandemic containment; Hired 3,500 focus volunteers for providing essential services and to keep a watch on home-quarantined and isolated people; and Issued guidelines for citizens on the pandemic in Tamil and English. 	<ul style="list-style-type: none"> Cumulative cases – 58,327; Recovered cases – 34,828; and Deaths – 885.
July 2020	<ul style="list-style-type: none"> Launched a drive to pick up homeless people; and Launched first issue of monthly newsletter: The Chennai – Together we stand. 	<ul style="list-style-type: none"> Cumulative cases – 98,767; Recovered cases – 83,890; and Deaths – 2,092.
August 2020	<ul style="list-style-type: none"> Home quarantine eligibility widened 	<ul style="list-style-type: none"> Cumulative cases – 135,597; Recovered cases – 119,626; and Deaths – 2,744.
September 2020	<ul style="list-style-type: none"> Commissioner Thiru. G. Prakash, IAS launched a first-of-its-kind performance-linked incentives and rewards system for revenue staff, christened GREAT (GCC Revenue Evaluation and Augmentation Task) Module. 	<ul style="list-style-type: none"> Cumulative cases – 167,376; Recovered cases – 152,846; and Deaths – 3,207.
October 2020	<ul style="list-style-type: none"> Reintroduced containment zones as cases continued to rise. 	<ul style="list-style-type: none"> Cumulative cases – 199,916; Recovered cases – 189,074; and Deaths – 3,648.

Date	Activities	COVID statistics at end of each month
November 2020	<ul style="list-style-type: none"> ▪ More than 6,000 homeless people rescued in the city since lockdown began 	<ul style="list-style-type: none"> ▪ Cumulative cases – 215,360; ▪ Recovered cases – 207,761; and ▪ Deaths – 3,847.
December 2020	<ul style="list-style-type: none"> ▪ Chennai Corp began identifying frontline healthcare workers for COVID-19 vaccination. GCC arranged a special desk at the Ripon Building to facilitate the registration of health workers for vaccine 	<ul style="list-style-type: none"> ▪ Cumulative cases– 225,507; ▪ Recovered cases – 218,882; and ▪ Deaths – 4,005.

Source: Media reports; www.covid19indi.org.

Local government's organizational structure

The health department of GCC has the responsibility of isolating COVID-19 infected persons, admitting them to healthcare facilities, contact tracing, supervising the staff, conducting surveillance surveys and barricading of containment zones.

Under GCC's micro-planning approach, 200 inter-departmental response teams have been formed in the city to promote better coordination between the health department and other municipal staff. The response teams in addition to the health officer, sanitary inspector and conservancy inspector also involved the respective assistance or junior engineers, tax collectors and license inspectors. These teams are headed by the respective assistant or junior engineers.

The Principal Secretary for Revenue Administration & Disaster Management at the state level has been designated as the nodal officer for overall coordination with four IPS officers identified to assist him. The field support team is responsible for assisting the district administrations in ensuring proper management of the containment zones, testing, contact tracing and provision of essential services.

A three-member team – comprising Principal Secretary to the medium, small and micro-enterprises (MSME) department, the Deputy Commissioner of police for headquarters for Greater Chennai and the former Deputy Director of Public Health – has been formed for working out interventions strategies. In addition, 2-4-member teams of various senior state government officers have been constituted for each of the 15 zones within GCC.

The spread of COVID-19 came with a need for quick action from all local governments and hiring of additional staff to meet the high demands of sanitary workers, health inspectors and ground staff for testing. For this purpose, GCC hired on contract basis or through deputation around 3,000 health workers in March for disinfection and increased the number to about 16,000 as field survey workers for a 90-day drive for door-to-door scanning of temperature and blood oxygen level on a daily or alternate day basis in April. It also introduced another new designation - focus volunteers - for monitoring and providing essential services to home-quarantined patients.

GCC's initiatives

A list of initiatives undertaken by GCC across the spectrum of epidemic management have been documented below.

Public health

Screening, testing, quarantine and contact tracing:

GCC took the initiative for early detection and screening by door-to-door scanning of temperature and blood oxygen level through a 90-day drive by hiring a special designation of health workers or field survey workers, paying them a monthly fixed salary for the period. Testing was carried out through the RTPCR method in the city and covered by the chief minister's health insurance scheme for its beneficiaries. Apart from this, fever camps were conducted for community-based testing by the health department at vulnerable locations analyzed by the divisional health officers daily.

COVID-19 care centers, institutional quarantine and home quarantine facilities take care of quarantine and isolation. Patients positive for the virus are treated either at the hospitals when required ventilator services or at the COVID-19 health centers when no ventilator service is required.

Apart from the aforementioned interventions, tele-counselling services are also provided by GCC for tracing symptomatic patients and assisting people in home quarantine or resolving pandemic-related queries of citizens.

Disinfection of property, waste and corpses:

GCC hired ~3,000 health staff for disinfection purposes, providing them with disinfectant sprayers, butterfly vehicle disinfectant sprayer, smoke-spreading vehicles totaling 208 disinfectant machineries. Apart from this, GCC also used drones for spraying disinfectants across the city and provided disinfection tunnels for spraying water mixed with Lysol on people crossing through the tunnel at some of the crowded market locations.

The SWM department collects waste from home-quarantined patients and quarantine centers separately and treats it as bio-medical waste incinerated at Zone 2 Manali of GCC.

IEC

GCC played a very important role in providing assurance and controlling panic caused by the pandemic. It provided social distancing guidelines and updates through various channels such as a dedicated page for COVID-19 information on the local government website, regular updates on its twitter handle and local newspapers. COVID-19 helpline numbers were printed in local newspapers and its website for citizens seeking healthcare assistance. GCC also released an app-based video consultation platform for people to connect with doctors from the convenience of their homes. It also has a tele-counselling app - Portea - for people in home isolation and a COVID-19-monitoring app for tracking and providing information on infection hotspots.

Human and financial resource management

Human resource management

At one of the government hospitals in Omandurar, nurses protested because of manpower shortage. The health department officials hired additional staff to pacify them. Another such issue was faced by Greater Chennai Municipal Corporation in early September when the city had just started recovering from the peak, as its sanitary workers went on strike for being underpaid by GCC as well as not having received relief of INR 0.2 million promised by GCC to COVID-19 workers in spite of having contracted the virus on duty. In order to ensure attendance of health workers and essential staff during difficult times, GCC took the following measures:

- It announced it would offer INR 0.2 million to staff members who got COVID-19 on duty;
- Frontline workers were also assigned priority for being tested using the rapid antibody testing kits given to GCC by the state; and
- In order to ensure efficient functioning of the staff for tax collection, the commissioner launched a performance-based reward system for staff members who collect maximum tax .

Financial resource management

As a response to the additional requirement of funds for carrying out preventive activities to contain the pandemic, Chennai sought financial assistance from the Revenue Administration and Disaster Management Department for funds under State Disaster Relief Fund (SDRF). More than INR 7,500 million was requested for this purpose, out of which ~INR 1,650 million was sanctioned through SDRF.

The following table summarizes government orders that were analyzed and identifies the amount requested and sanctioned:

Items	Amount requested (INR million)	% of total amount requested	Amount sanctioned (INR million)	% of total amount sanctioned
Manpower expenses	3544.1	27%	433.9	19%
Disinfection equipment/ machinery	2058.9	16%	536.4	24%
Face masks/PPE/thermal scanners/testing	1652.3	13%	413.5	18%
Travel & food	3311.5	25%	688.2	31%
Administration, IEC activities & community intervention	867.3	7%	0	0%
Quarantine & isolation/ COVID-19 drugs/kits	361.5	3%	147.6	7%
Disaster management & critical electrical installations	390.2	3%	30	1%
Purchase of vehicle/ machinery/equipment	928.4	7%	0	0%

Source: Tamil Nadu State Disaster Management Authority, Revenue and Disaster Management Department; CRIS analysis.

Although funds were requested regularly for the above tabled items, the amount sanctioned was much less. Apart from the listed amounts, ~INR 300 million was additionally sanctioned for some un-specific orders.

It was observed that requests related to items such as manpower expenses, disinfection, masks, PPE kits, thermal scanner and testing, transport, food, and Kabasura Kudeener - an ayurvedic concoction under COVID-19 drug, etc. were not sanctioned uniformly, showing inconsistencies and lack of clarity on items eligible for funds under SDRF. Expenses related to administration, IEC activities and community intervention, and purchase of vehicle/ machinery/equipment were not sanctioned in any of the orders, suggesting these items are ineligible for funds under SDRF.

Inconsistencies and partial sanctions observed in the disinfection and provision of COVID-19 drugs and kits are because of eligibility of particular items within these buckets. Sodium hypochlorite, Lysol, hand sanitizers, soap, drone sprays, etc. were fully covered by the fund under disinfection equipment and machinery. Items such as PPE kits, thermal scanners, testing and zinc and multivitamin tablets under the COVID-19 drugs and kits were also fully covered by the fund; while masks were partially covered depending on their type.

Order number 361 released in July specifies the actual expenditure incurred for carrying out preventive activities to control the pandemic from April to June:

Items	Requested amount (INR million)	Expenditure incurred (INR million)	% of total expenditure	% of requested amount
Manpower expenses	910.9	683.1	31%	75%
PPE, masks, thermal scanners and testing	588.0	319.5	15%	54%
Disinfection equipment, machinery & related consumables	504.6	281.5	13%	56%
Transportation & food arrangements	682.5	575.5	26%	84%
Administration & IEC	85	98	4%	115%
Community intervention program	303.2	150	7%	49%
Home isolation follow up	42	42	2%	100%
Critical electrical installations	32.2	32.2	1%	100%
Total	3148.4	2181.8		

Source: Tamil Nadu State Disaster Management Authority, Revenue and Disaster Management Department; CRIS analysis.

Another source of state assistance has been the Chief Ministers Health Insurance Scheme (CMCHIS) which covers its beneficiaries for COVID-19 testing.

Ensuring access to food, medicines and other essentials

Poor are the worst effected in calamities and GCC has taken various measures to provide as much relief to them as possible during this pandemic:

- Relief camps have been set up to provide food, essential supplies and shelter for migrants and homeless people;
- Free food is offered at all 407 Amma canteens across Chennai; and
- 92 NGOs (on a volunteer basis) have been deployed for providing food, essential services, testing and COVID-19 support at the slums of Chennai.

Annexure-4: Case of Amritsar, Punjab

Introduction

Amritsar had a population of 1,132,383 in 2011 and a density of 8,129 persons per sq.km. Less than 3% of the population resided in slums. The city faced large epidemics in the past, the last outbreak being hepatitis E in 2013.

COVID-19 trend and indicators

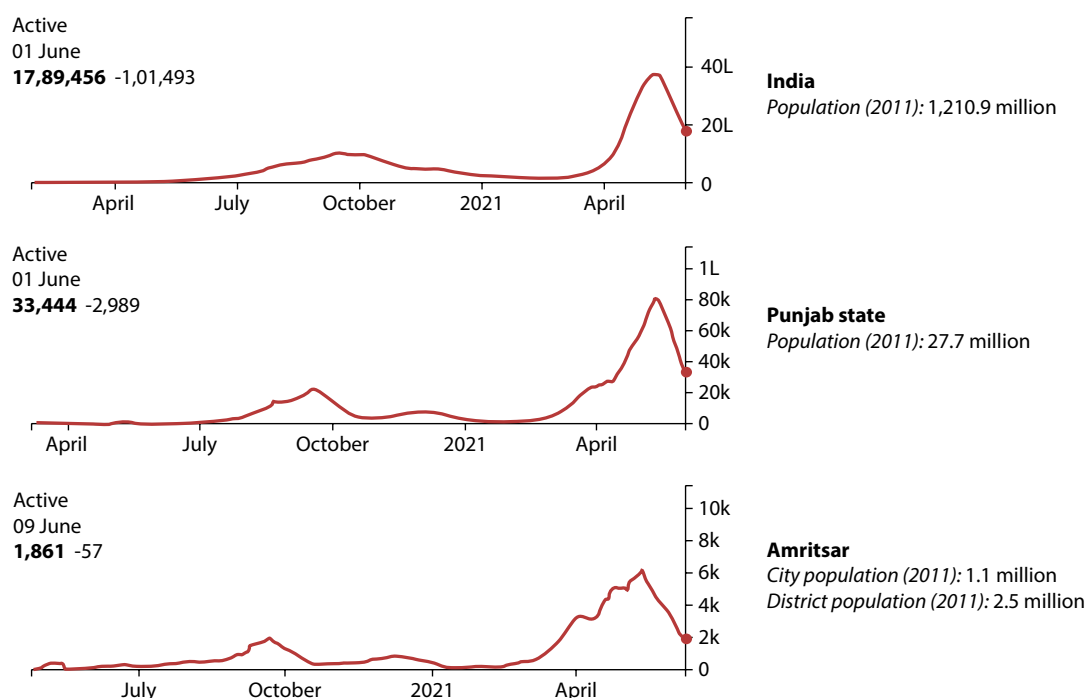
Amritsar recorded a cumulative of 44,824 COVID-19 cases as on June 1, 2021. The cumulative cases relative to the population of Amritsar district as well as Punjab state (at 5,833 cases per million and 6,011 cases per million, respectively) were lower than the national average (of 8,512 cases per million) in 2020. Considering the period up to January 1, 2021 the trend was just the opposite for COVID-19-related fatalities with 223 deaths per million in Amritsar versus national average of 123 deaths per million. In 2020, the number of active cases in Amritsar had peaked around the same time (with 1,882 active cases in Amritsar district as on September 22, 2020) with the state and national levels in September 2020. In 2021, the peak active cases recorded per day were 6,145 as on May 13, 2021 and had peaked around same time when the state and the national peaks were recorded.

TABLE 18 COVID-19 STATISTICS AT THE DISTRICT, STATE AND NATIONAL LEVELS

	Amritsar district	Punjab state	India
Population (2011)	24,90,656	2,77,43,338	1,21,08,54,977
Phase-1 (March 2020 – January 2021)			
Cases (cumulative)	14,528	1,66,770	1,03,06,469
Cases per million (cumulative)	5,833	6,011	8,512
Deaths (cumulative)	556	5,349	1,49,255
Deaths per million (cumulative)	223	193	123
Cases recovered (cumulative)	13,603	157,904	
Number of active cases	369	3,517	2,47,427
Number of active cases at peak	1,882 (Sept 22, 2020)	22,399 (Sept 19, 2020)	10,13,931 (Sept 18, 2020)
Case mortality rate	3.8%	3.2%	1.4%
Recovery rate	93.6%	94.7%	96.1%
Phase-2 (January 2021 – June 1, 2021)			
Cases (cumulative)	30,296	405,200	18,000,566
Cases per million (cumulative)	12,163	14,605	14,866
Deaths (cumulative)	905	9,399	185,861
Deaths per million (cumulative)	363	339	153
Cases recovered (cumulative)	26,821	368,185	16,265,577
Number of active cases	2,939	31,133	17,89,456
Number of active cases at peak	6,145 (May 13, 2021)	79,963 (May 12, 2021)	37,19,192 (May 7, 2021)
Case mortality rate	3%	2.3%	1%
Recovery rate	88.5%	90.8%	90.4%

Source: covid19india.org, Census 2011.

FIGURE 6 COVID-19 TREND AT THE NATIONAL, STATE AND DISTRICT LEVELS



Source: covid19india.org, Census 2011.

COVID-19 responsibilities within Amritsar city

The MCA was tasked with supporting the district administration in managing COVID-19. Based on the directions of the district administrators, MCA was responsible for home quarantine, disinfection of property, management of potentially infected waste and corpses of people infected with COVID-19 as well as ensuring that the citizens have access to food, medicines and other basic essentials.

TABLE 19 COVID-19 RESPONSIBILITIES WITHIN AMRITSAR CITY

Activities	Amritsar
Overall coordination	District administration
Surveillance and testing	District health department
Quarantine of infected persons at home or at institutional centers	Local government
Delineation of containment zones	District administration
Implementation of social distancing	Police
Healthcare	District health department
IEC and awareness	District administration
Disinfection	Local government
Disposal of infected waste and corpses	Local government
Access to essentials	Local government

Source: Consultations with key officials, media coverage and government notifications.

Preparedness of the local government for COVID-19

Legal, regulatory and policy frameworks

Most of roles that MCA was tasked form a part of its mandate under the Punjab Municipal Act. However, there no legal mandate for MCA to ensure access to food, medicines and other essentials in the event of a disaster such as an epidemic.

TABLE 20 ROLES ASSIGNED TO THE LOCAL GOVERNMENT UNDER THE LEGISLATIVE FRAMEWORK

	Amritsar
Surveillance and testing	▪ PM Act
Quarantine of infected person at home or at institutional centers	▪ PM Act
Disinfection	▪ PM Act
Disposal of infected waste and corpses	▪ PM Act
Access to essentials	▪ No provision

Source: PH Act, CRIS Analysis.

Organizational structure

The local government's health department is tasked with the responsibility to prevent water-borne diseases and diseases resulting from insanitary conditions. The health department is responsible for SWM and public sanitation. The MCA does not have any disaster management department or cell, nor are any of its departments tasked with the responsibility to fight against disasters.

Planning framework

There are two statutory planning avenues in Amritsar, which includes land-use planning or masterplan under the Punjab Regional and Town Planning and Development Act, 1995 and disaster management planning under the Disaster Management Act, 2005.

The land-use plan for Amritsar was prepared by the T&CP Department and not the MCA. The last plan was prepared in 2013.

On the other hand, city-level disaster management plans were prepared in Amritsar. There is a disaster management plan at the district level, too, prepared by the district administration, which the MCA is required to follow.

Masterplan for Amritsar Local Area, 2013

The land-use plan prepared for the Amritsar Local Area, covered an area larger than the city and contained a section on disaster mitigation where the existing situation was documented but no key proposals were made. Among disasters, the masterplan identified earthquakes, floods and fires as well as non-availability or contamination of water as threats but did not cover disease outbreaks.

Amritsar District Disaster Management Plan, 2011

The district disaster management plan provides the overall institutional framework and emergency protocols for dealing with disasters. The plan assigns the municipal corporation with the role of ensuring water supply, clearance of any debris and providing road access in case of disasters as well as ensuring adequate lighting for relief and rescue purposes. The plan contains advisory on dealing with floods and earthquakes, but does not cover any guidance on various aspects of managing epidemics such as disease surveillance and screening, testing, quarantine and disinfection, etc. Instead, it assigns the task of preparing contingent plans for epidemics to the civil surgeon of the district. The plan, however, does not assess the preparedness of the municipal corporation to manage disasters or provide a roadmap to ensure the same.

Financing framework

MCA does not maintain a budget for disaster preparedness or for emergency provisions in case of a disaster. Neither does the district disaster management plan cover any financing framework. As discussed earlier, the municipal legislation though does empower the Commissioner to spend from the municipal fund, irrespective of the budget provisions, in case of an epidemic.

Responsiveness of the local government to COVID-19

Response timeline

MCA initiatives have been documented against a timeline beginning March 2020.

Month	Response	COVID statistics at end of each month
March 2020	<ul style="list-style-type: none">One of the early MCA measures included disinfection of its own premises, preponing of fumigation of roads and a more stringent approach towards regulating public littering. Some of the complaints that the local government faced early in the month of March were on the unhygienic conditions of public toilets; andAnother early measure was to broadcast contact information of councilors, MCA staff, staff from the district administration and the police force engaged in each of the five constituencies within MCA and also announce the contact information of grocery stores across the city.	Information not available
May 2020	<ul style="list-style-type: none">About two months after the first COVID-19 case in the city, Amritsar was identified among the 30 Indian municipal zones contributing to 79% of the national COVID-19 burden;MCA expanded its disinfection activities to include quarantine centers as well as private homes. A target of sanitizing 500 homes daily was set; andAn insurance policy was also extended to sanitary workers through HDFC Bank, providing medical cover for COVID-19 along with life insurance.	<ul style="list-style-type: none">Cumulative cases – 377;Recovered cases –310; andDeaths –7.
June 2020	<ul style="list-style-type: none">About three months post the first COVID-19 case, there were concerns over low testing in the district. One of the concerns included complaints of poor quality of quarantine accommodation.	<ul style="list-style-type: none">Cumulative cases – 911;Recovered cases – 740; andDeaths –42.

Month	Response	COVID statistics at end of each month
July 2020	<ul style="list-style-type: none"> Nearly four months after the first COVID-19 instance, MCA commissioned mobile sample collection vans for picking up samples from residential houses. This was undertaken to encourage people living in containment areas to undergo testing while addressing their fear of contracting infections at testing centers. 	<ul style="list-style-type: none"> Cumulative cases – 1,799; Recovered cases – 1,256; and Deaths –76.
September 2020	<ul style="list-style-type: none"> About six months post the first COVID-19 case, the Punjab government announced distribution of free food packets to poor families to assuage their fear of being quarantined on getting tested. 	<ul style="list-style-type: none"> Cumulative cases – 9,987; Recovered cases – 8,269; and Deaths –361.

Source: Media reports; www.covid19indi.org.

Organizational structure of the local government

The district administration primarily led and coordinated the efforts against COVID-19 in Amritsar with MCA providing support as and when required. The district administration appointed an additional commissioner of MCA as the nodal officer to lead the team responsible for rapid response and home isolation.

The water supply and sewerage departments were tasked with ensuring continuous water supply and sewerage services. The health department was responsible for containing the spread of the virus through disinfection measures and by supporting the district health department in ensuring home quarantine of infected persons.

Two senior MCA officers (including municipal town planners, superintending engineers and superintendents) were designated, in each of the five constituencies in the city, for overseeing COVID-19-related activities and supporting the civilian and police staff deputed by the district administration in each of these constituencies. MCA staff was also allocated to support these officers in COVID-19 management.

Initiatives undertaken up the MCA

A list of initiatives undertaken by MCA across the spectrum of epidemic management has been documented below:

Public health interventions
<ul style="list-style-type: none"> Screening, testing & contact tracing, quarantine: <ul style="list-style-type: none"> MCA was responsible for ensuring that COVID-19-infected persons quarantine themselves at their own homes wherever possible. The list of infected patients was provided to MCA by the district COVID-19 control room. Disinfection of property, waste and corpses: <ul style="list-style-type: none"> MCA undertook disinfection initiatives to sanitize their own premises, public places and also private homes particularly for those falling in the containment zones. Fire tenders as well as drones were deployed for this disinfection activity. MCA also preponed the fogging activities typically undertaken pre-monsoon to prevent the outbreak of diseases. MCA designated two crematoria for managing corpses of infected persons. Amritsar Enviro Care Systems Pvt. Ltd., the agency tasked with bio-medical waste management, was also responsible for collecting and disposing bio-medical waste generated as a result of COVID-19.

In addition to the general customer care helpline operated by MCA, it also publicized contact details of various MCA staff as well as staff from the district administration and police engaged in COVID-19 management in the city.

- **General communication:**
 - MCA publicized the mobile numbers of officers deputed by the district administration for COVID-19, officers deputed by the police as well as MCA's nodal officers and support staff in each of the five constituencies within the city. In addition to this, MCA also broadcasted the mobile numbers as well as address of all 85 of its councilors.
- **For COVID-19 testing, healthcare and sanitization:**
 - MCA publicized ward-wise contact details of its health department, which included details of two medical officers, chief sanitary inspector as well as the sanitary inspectors.
- **For essential services:**
 - MCA publicized the contact details and address of grocery stores operational across the city. MCA also set up an online portal on its website that allows one to locate grocery stores, vegetable stores and medical stores in any locality with the city, access contact information and also check if the stores are operational or not.

Human and financial resource management

Apart from the pandemic-specific activities such as ensuring access to essential services, supporting screening & testing activities and disinfection, MCA also had to ensure continuation of its usual services such as water supply, sewerage, street sweeping and waste management.

- **Human resource management:**
 - About 300 MCA staff including those from its health department were engaged in COVID-19 management and designated in each of the five constituencies in the city;
 - Given the extra burden of large-scale disinfection, 500 additional personnel were engaged by outsourcing the sanitation activities. Two personnel were hired on contract for two crematoria for corpse disposal;
 - In order to safeguard sanitary workers and keep them motivated, MCA tied up with HDFC bank to provide medical insurance as well as life insurance to the tune of INR 3 million for accidental death and INR 0.325 million in case of natural death. MCA also committed to taking up health checkup for its employees every fortnight and issue fitness certificates to them; and
 - For deployment of staff to perform door-to-door screening, 88 auxiliary nursing mid-wives (ANM) were trained.
- **Financial management:**
 - MCA received a grant of about INR 2 million for the procurement of PPE kits;
 - The additional burden on MCA due to COVID-19 was estimated to be under INR 2.5 million in November 2020; and
 - At the same time, MCA also faced a sharp decline in its tax collection targets. MCA was able to collect only 27.5% of its target for property tax, 23.3% of its target for advertisement tax, 4.6% of its target for monetization of land and 7.7% of its target for water supply & sewerage charges by November 2020.
- **Other resources:**
 - One of the key activities requiring large-scale resource mobilization was the extensive disinfection of municipal property, public places and homes especially in the containment zones. The supply of sodium hypochlorite, used for disinfection as well as treatment of water, was maintained through the Punjab Alkalies Ltd. a company majorly owned by the Punjab State Industrial Development Corporation Limited. MCA also procured drones for disinfection purposes in addition to the use of the existing fire tenders. For transport of health sector workers as well as for household collection of samples for COVID-19 testing, the city buses available with MCA were utilized. Vehicles and fuel were also provided by the district administration.

Ensuring access to food, medicines and other essentials

- **Access to food and other essentials:**
 - MCA set up a portal on its website for easy identification of stores providing groceries, vegetables and medicines along with their contact details and information on whether they are operational or not.
- **Provision of subsidized/free food and other essentials for urban poor and other vulnerable population:**
 - Based on the information provided by the district administration on the demand for rations, MCA worked with the Ration depot holders to distribute ration packets to the urban poor identified as people not holding the blue ration card;
 - Food grains were distributed to vulnerable population (including urban poor and migrants) through the MCA zonal teams;
 - MCA was involved in registering migrants, providing food and temporary accommodation; and
 - MCA was also involved in registering street vendors for accessing micro-credit under the PM Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi).

Annexure-5: Summary of legislative framework for Ahmedabad

The Gujarat Provincial Municipal Corporations Act, 1949

The GPMC Act has defined the following mandatory functions of the local governments considering public health management in case of spread of dangerous diseases.

- Prevention and checking the spread of dangerous diseases;
- Construction, acquisition and maintenance of public hospitals and dispensaries;
- Construction, acquisition and maintenance of hospitals for isolation and treatment of patients infected with contagious disease;
- Secure or remove dangerous buildings and places that may cause spread of the disease;
- Inspect an infected place and demolition of hut/shed for curbing disease spread;
- Record and maintain the data on number of deaths within the city;
- Execute the public vaccination process; and
- Registration of places for cremation and disposal of dead. In case if such places are insufficient, the local government has to provide for such places elsewhere.

Apart from these mandates, the local governments can undertake the following activities/measures for managing spread of a dangerous disease:

- Closure of water bodies likely to cause spread of the disease;
- Close lodging house or places preparing/selling food articles or any other place posing threat of infection and open such places once they are disinfected or free from infection;
- Organize, maintain and manage chemical or bacteriological laboratories for detection or research related to diseases and public health concerns;
- Disinfect areas wherein an infected person resides;
- Examination of disinfection processes and facilities;
- Order closure of places of entertainment, schools and markets as well as restrict movement of infected persons or transportation of infected articles for any such period;
- With sanction of state government, can take special measures and prescribe temporary orders to prevent the outbreak/spread of a disease if the Municipal Commissioner is of the opinion that the existing rules are insufficient to contain the disease spread;
- Provide place with necessary apparatus and attendance for disinfection of infected clothing, bedding or other articles;
- Organize, maintain or manage institutions outside the city limits for sick or incurables;
- Maintaining ambulance services;
- Organizing or maintaining shops/stalls of necessary items during scarcity;
- Provision of shelter to destitute and homeless;
- Undertake measures to meet any calamity and promotion of public health and safety;
- Provide conveyance for free carriage of patients suffering from dangerous disease or prohibit conveyance of such patients in public conveyances;

- Hospitalization of a person suffering from infectious disease, if that person does not have a suitable accommodation to prevent the disease from spreading;
- Impose penalty to cover loss and expenses incurred to disinfect a public conveyance; and
- Can levy fees for disinfection of infected articles to a disinfection facility set up by city or provide such services free of cost. The decision of fixing such charges vests with the Standing Committee.

In addition to the above functions, the local government staff involved in providing essential services cannot neglect or refuse to perform any of his/her duties as well as resign office unless permitted by the Municipal Commissioner and having served two months of notice period.

Gujarat State Disaster Management Act, 2003

Gujarat was the first Indian state to provide legal and regulatory framework for disaster management with enactment of the GSDM Act in 2003. Post the earthquake of 2001 in Gujarat, the state government formed GSDMA under the provisions of the Societies Registration Act and Bombay Public Trust Act for rehabilitation and reconstruction program in earthquake-affected areas, as well as act as a nodal agency to plan and implement pre-disaster preparedness. With enactment of the GSDM Act, the GSDMA constituted in 2001 was dissolved and was reconstituted as a statutory authority. The GSDM Act is applicable in public health emergency within the state as the act defines a disaster as natural or otherwise event which causes or threatens to cause widespread loss or damage to property, widespread loss of human lives or injury or illness among humans that damages/degrades the environment. In accordance with the mandate of the GSDM Act, a disaster management authority (the GSDMA) is responsible for developing preparedness and responsiveness of the authorities identified for disaster management within the state. The authorities identified include the state government, the GSDMA, Heads of all government departments, State Relief Commissioner, Collector of district and local authorities. The GSDMA's scope of work extends to mitigating/reducing risk and severity of disaster, capacity building, emergency preparedness, assess effects of disaster, provide emergency relief and rescue and post disaster rehabilitation and reconstruction. The GSDMA constitutes of a Chairperson and not more than 14 members including, the Chief Minister (acts as Chairperson), two ministers nominated by the Chief Minister, the Chief Secretary of the state, Secretary to the Government of Gujarat – Revenue Department, the CEO of the Authority, State Relief Commissioner, Director General of Police and other offices as the State Government may seem fit.

Local governments have been identified as one of the authorities for disaster management under the GSDM Act, 2003. However, the directions given by the local authorities are supervised by the District Collector and the relief works are executed by them under directions of the State Relief Commissioner. Moreover, the local government has to ensure that staff is trained and resources concerning disaster management are maintained and ready for use as well as periodically conduct disaster management drills. In accordance with the GSDM Act, the local governments have been mandated to prepare, coordinate, implement, review and update city level disaster management plan and submit the same to GSDMA.

Gujarat Emergency Medical Services Act

The health department of the Government of Gujarat drafted the Gujarat Emergency Medical Services Bill and was enacted in 2007 as Gujarat Emergency Medical Services Act by the State Legislative Assembly. The objective behind drafting of such act was to ensure a legal framework in order to provide emergency medical services during disasters. Under the Gujarat Emergency Medical Services Act 2007, a Gujarat Emergency Medical Services Authority (GEMSA) has to be formed by the state government ensure provision of services such as emergency medical services, prepare plans, provide technical and financial assistance as well as lay

standards for training emergency medical technicians. Such an authority consists of a chairperson and 17 other members including but not limited to the Secretary of the Government of Gujarat Health and Family Welfare Department, Legal Department and Home Department, a physician or surgeon, President of Gujarat branch of Indian Medical Association and CEO of GSDMA. The implementation of the GEMS Act is currently handled by the Medical Services division of Commissionerate of Health within Health and Family Welfare Department of Government of Gujarat. The GEMSA has been entitled its own fund. It can accept grants, donations and gifts however, the GEMSA can borrow money for its purposes and execute its budget with prior approval of the state government.

In accordance with the GEMS Act, within every city and district the state government has to form a City Emergency Medical Services Council which is a body corporate. It has to comprise of 8 members including the Municipal Commissioner (also chairperson), president of branch of Indian Medical Association in the city, Chief Health Officer of city, Commissioner of police of city, Chief of Fire Brigade, President of District Blood Transfusion Council, person representing hospitals in city council and person representing NGOs associated with providing emergency medical services. The office term for the members is three years. These councils have to ensure provision of emergency medical services, prepare plans for implementation of these services, entrust work of providing or directing life support system, prepare and maintain register of base hospitals, supervise functions of base hospitals, establish trauma centers, grant licenses to ambulances and provide certificate of recognition to NGOs or persons providing emergency medical services. It can accept grants, donations and gifts; however, the City Emergency Medical Services Council (CEMSC) can borrow money for its purposes and execute its budget with prior approval of the state government.

Gujarat Public Health Act, 2009

The GPH Act was enacted in 2009 for ensuring quality health services for its residents. In line with the GPH Act, the state government has to establish a State Public Health Authority, State Public Health Board, Commissionerate of Health Services, Health Care Establishment (Registration & Regulation) Authority, Monitoring Committees and Public Health Redressal Mechanism. Currently, the DoH&FW, of Gujarat has established a Commissionerate of Health Services in accordance with the act. The act also elaborates on the role and responsibility of the state government towards public health, provisions for comprehensive public health plans at state and local level, training of public health related agencies, earmarking of revenue for public health services, role of local authorities, public health management during emergencies/disasters, public health impact assessment, structure of healthcare system and rights of citizens with respect to healthcare.

The GPH Act, 2009 mandates the local governments to prepare and implement public health plans in alignment with the public health plans prepared by the state government. These health plans prepared by the local governments incorporates examination of data on health status and risk factors for community, assessment of public and private sector resources, capacity and performance of local public health system and identification of goals and strategies for improving health of local community. The act also empowers the local governments to formulate public health bye-law in line with the GPH Act. The act also mandates all healthcare providers, medical examiners, pharmacists, laboratories in public or private sphere have to report to executive authority, health officer or sanitary inspector in case of identification of potential cause of public health emergency. The local government has to ascertain existence of cases and health condition which can be potential cause of public health emergency, investigate such cases for source of infection, ensure that they are subject to proper control measures and define magnitude of problem by assessing the current condition. In case of any outbreak, the medical officer of a health facility has to send a sample to public health laboratory

for confirmation and diagnosis, manage the identified cases, initiate control measure to prevent spread and submit a report to the local authority and district health authority.

Epidemic Diseases Act, 1897

An Epidemic Diseases Act was implemented in 1897 by the national government empowering the state governments to take measures and by public notice prescribe temporary regulations in case of a threatened or prevailing outbreak of disease/s. The act entitles the state government to inspect persons travelling and segregate suspected infected persons in hospitals or temporary accommodations. Any regulations made under the Epidemic Disease Act 1897, if disobeyed, are liable to punishment under section 188 of the IPC.

Annexure-6: Summary of legislative framework for Chennai

Chennai City Municipal Corporation Act, 1919

The Chennai City Municipal Corporation Act was formed in 1919 and has provisions for notification, prevention and treatment of infectious diseases. Some of the mandatory provisions are as follows:

- Obligation of medical practitioners to report any outbreak of infectious diseases;
- Disinfection of infected property and public spaces and public conveyance and power to destroy infected articles;
- Provisions restricting infected person entering any public space, using public conveyance or carrying out occupation;
- Prohibition against transfer of infected articles; and
- Provisions to prohibit use of library books by infected people.

Apart from this there are some discretionary provisions too, as follows:

- Provision for appointment of health officers;
- Power of commissioner to prohibit use of water likely to spread infection;
- Provision of conveyances for carriage of patients;
- Power to order closure of places of public entertainment;
- Power to order removal of patients to hospital;
- Provision to prohibit students with minor suffering of disease to attend school; and
- Provision to destroy huts and sheds when necessary to stop spread of infection.

Public Health Act, 1939

The Tamil Nadu Public Health Act was formed in the year 1939 and amended in 2020, which is known as "Tamil Nadu Public Health (Second Amendment) Ordinance, 2020" to include provisions for social distancing, isolation, quarantine and including police officers for certain responsibilities along with health officers. The act also mentions that not less than 39% of its income from all sources other than Government grants should be budgeted for expenditure on the advancement of public health in its local area. The mandatory provisions with respect to prevention, notification and treatment of infectious diseases are as follows:

- Provision for the local authority to provide additional health staff, medicines, appliances, equipment etc. that may be required upon notification of outbreak of an infectious disease;
- Provision and maintenance of isolation wards and hospitals;
- Obligation of medical practitioners to report any outbreak of infectious diseases;
- Provision of ambulances by the local authority;
- Power to order removal of patients to hospital;
- Provisions prohibiting infected persons from exposing other people to risk of infection by restricting them from moving in public spaces, prohibiting them from carrying out their occupation and restricting them to use public conveyance;

- Provisions to prohibit usage of suspected infection in water source in case of outbreaks;
- Provisions for disposal of bodies of persons dying while suffering from infected disease;
- Provisions to prohibit use of library books by infected people;
- Provisions providing the magistrate powers to restrict assembly of more than fifty persons;
- Provisions allowing to perform tests on isolated or quarantined persons and evacuation and disinfection of infected property;
- Provisions to close all or any existing market and to appoint special places where markets may be held;
- Provisions to impose restrictions on the operation of public and private transport;
- Provisions to ensure prohibition of spitting in public places, observance of social distancing norms, wearing of masks and such other instructions that may be issued, from time to time, by the government in the interest of public health and safety; and
- Provisions for ensuring operating procedures in public spaces such as gym, salons, spa etc. and ensure strict adherence to the guidelines issued by the government to be followed in containment zones.

Annexure-7: Summary of legislative framework for Amritsar

Punjab Municipal Corporation Act, 1976

The municipal act covers epidemics and prescribes powers to the municipal corporation to prevent and contain such outbreaks.

- **Detection:** Any incidence of infectious disease is required to be reported to the health officer;
- **Disinfection:** The commissioner is empowered to undertake disinfection of public as well as private property. The commissioner is also required to ensure that garbage collected from infected persons and corpses of infected persons are disinfected and disposed in an appropriate manner;
- **Quarantine:** In cases where an infected person is unable to self-isolate, the municipal commissioner is empowered to have such a person quarantined. Moreover, the Commissioner is also empowered to prevent infected persons from engaging in trading activities that may put others at risk; and
- **Financing:** In the event of an outbreak, the municipal corporation may use the municipal fund irrespective of whether or not such expenditure is covered under the budget.

Epidemic Act 1897 (Punjab Amendment, 1944)

The legislation was amended in Punjab in 1944 to explicitly enable the state government to delegate the powers under the law to the district administration, except for the power to approve expenditure. The law, however, does not contain any provision pertaining to the local governments.

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