Strengthening India's Urban Transport Governance Through a State Unified Transport Authority

CLEANER **AIR** &
BETTER **HEALTH**
PROJECT

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Strengthening India's Urban Transport Governance Through a State Unified Transport Authority

Accessible and well-defined lanes for pedestrians and cyclists create safer and inclusive infrastructure.

Foreword

Dr Nishith Rai
Director, Regional Centre for Urban and Environmental Studies

India's urbanisation story is captivating, with a notable population shift from rural to urban areas. It looks like this trend will continue, with estimates showing that almost 70 per cent of India's population will live in urban areas by 2050. Urban areas are undergoing rapid economic growth, technological advancements, and infrastructure expansion in tandem with this demographic shift. However, there are a number of issues pertaining to urban mobility need special attention from the state level in terms of policy preparation and city-level coordination between various organisations to ensure on-ground implementation of various central/state-driven schemes and projects.

In order to address these challenges and to ensure as structured institutional framework to deal with urban mobility challenges, the establishment of Unified Transport Authorities both at the state level and city level is imperative. Such bodies shall aim to enhance the efficiency, accessibility, and affordability of urban mobility. Additionally, they play a are pivotal in promoting sustainable transport solutions, reducing carbon emissions, and improving the overall quality of life in urban areas. In this regard, the report delves into the institutional barriers and advocates for the establishment of a state-level body to oversee the urban transport system. As a case study, this report thoroughly examines Uttar Pradesh's current institutional and proposes a framework for creating a state-level unified transport body to manage the urban transport system within the state in a much more efficient manner. I believe this document will play a vital role in restructuring urban mobility, promoting a more organised approach not only in Uttar Pradesh but also in other states across India.

Well-planned multi-modal systems promote sustainable transportation by making public transit more accessible and convenient.

Foreword

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With the rapid urbanisation sweeping across India, the challenges associated with urban transport are becoming increasingly apparent. As cities expand, so do the complexities of managing transportation systems to ensure sustainability, efficiency, and inclusivity. However, the current state of urban transport governance presents significant obstacles to achieving these goals. There is a need to understand the fragmented governance framework that currently characterises urban transport management. Multiple departments with overlapping responsibilities, limited coordination mechanisms, and inadequate resources contribute to inefficiencies and suboptimal outcomes in urban transport planning and execution.

The report delves into the complexities surrounding urban transport governance in India, shedding light on the systemic issues hindering effective planning and implementation. Fragmented governance frameworks, characterised by overlapping jurisdictions and limited coordination among multiple departments, pose formidable obstacles to achieving seamless mobility and sustainable urban development.

Recognising the importance of integrated transport systems and the need for more robust institutional structures, the report presents a compelling case for establishing State-level Unified Transport Authorities (SUTAs). By assuming responsibility for policy formulation, finance administration, departmental coordination, research, and implementation guidelines, SUTAs can bridge the gap between central and local levels of governance. Against this backdrop, the report advocates for the urgent need to rethink and revitalise urban transport governance in India. By proposing innovative solutions and advocating for stronger institutional structures, the aim is to catalyse transformative change and pave the way for more resilient, inclusive, and sustainable urban transport systems nationwide.

Last-mile connectivity via non-motorised transit modes provides cost-effective, eco-friendly transportation solutions, linking transit hubs to final destinations.

Contents

Mass transit systems are vital for efficient transportation, helping alleviate traffic congestion and pollution in cities.

Executive summary

India's urban population is expected to nearly double from 461 million in 2018 to 877 million by 2050, according to UN estimates. Urban transport is one of the key drivers of the economy, so it is important that these growing cities prioritise investment and targeted policies. Policy alignment at the state level is essential to meet Nationally Determined Contributions (NDC) targets and achieve the net zero vision.

Cities have limited technical capacity to plan for integrated clean transport. Thus, the central government often nudges municipal institutions through national-level policies, programmes, and guidelines. Project implementation happens in cities with approval and funding support from the state level. Hence, there is a need for coordination between the central, state, and city agencies to ensure effective execution at scale.

According to the Seventh Schedule of the *Constitution of India*, urban transport falls under the state governments' purview. Its functions are distributed among the Urban Development Department, Transport Department, Public Works Department, Traffic Police, etc., making coordination cumbersome. Overlapping jurisdictions make urban transport services and infrastructure planning challenging. These overlaps, along with resource constraints, often result in siloed departments and additional complexity in the sector (Gijre and Gupta 2020).

A state-level coordinating and regulatory body is crucial for establishing a unified vision for urban transport planning. This state nodal agency will play a pivotal role in fostering consensus among departments on key areas such as multimodal integration, clean vehicle strategies, revenue generation, and tariff monitoring.

This study proposes a State Unified Transport Authority (SUTA) to strengthen the institutional structure and promote an inclusive, integrated urban transport system, and effectively alleviate negative externalities like congestion and air pollution.

The study, conducted under the USAID-supported Cleaner Air and Better Health (CABH) project that aims to mitigate and reduce exposure to air pollution, is based on a global literature review and best-case studies of various transport agencies, exploring their institutional evolution to analyse their functional and legal powers. Additionally, several government officials, members of academia, and subject experts in India, have been consulted to get insights on governance gaps.

A. Key findings

- **Need for a dedicated urban transport institution at the state level:** Only a few states have established state-level nodal agencies for urban transport through executive orders. However, these existing agencies need more institutional power to direct other departments and substantial budgetary controls to drive urban transport initiatives.

- **Implementation gaps in Unified Metropolitan Transport Authorities (UMTAs):** In India, the guidelines for establishing UMTAs served as an initial step for interdepartmental coordination among city agencies and urban local bodies (ULBs). In the absence of a lead agency facilitating the setting up of UMTAs and providing necessary resources, very few cities have set up such authorities. Hence, most of them function as coordinating agencies, lacking the necessary technical expertise and financial resources to carry out their responsibilities effectively.

- **Institutional strengthening for integrated planning:** Robust horizontal coordination while ensuring vertical integration across central, state, and local governments is crucial for integrated transport planning (as explained in Figure ES1). Global best practices, such as the transport authorities in London, Singapore and Lagos, demonstrate institutional evolution to oversee a unified vision and approach to transportation planning.

B. Key recommendations

The study recommends a state level nodal agency - SUTA, to strengthen the existing transport governance framework—organisationally, financially, and legally. SUTA will help in adopting policy driven, robust governance in urban transport planning. Strengthening state-level urban transport governance will ensure contextual research and development, robust infrastructure project planning and budget management. The study recommends five key functions for SUTA - policy formulation, finance administration, departmental coordination, research, and providing implementation guidelines.

> Strengthening state-level urban transport governance is necessary for policy making, departmental coordination and budget management.

Figure ES1 Horizontal coordination among different departments and vertical integration across different government levels for robust transport governance
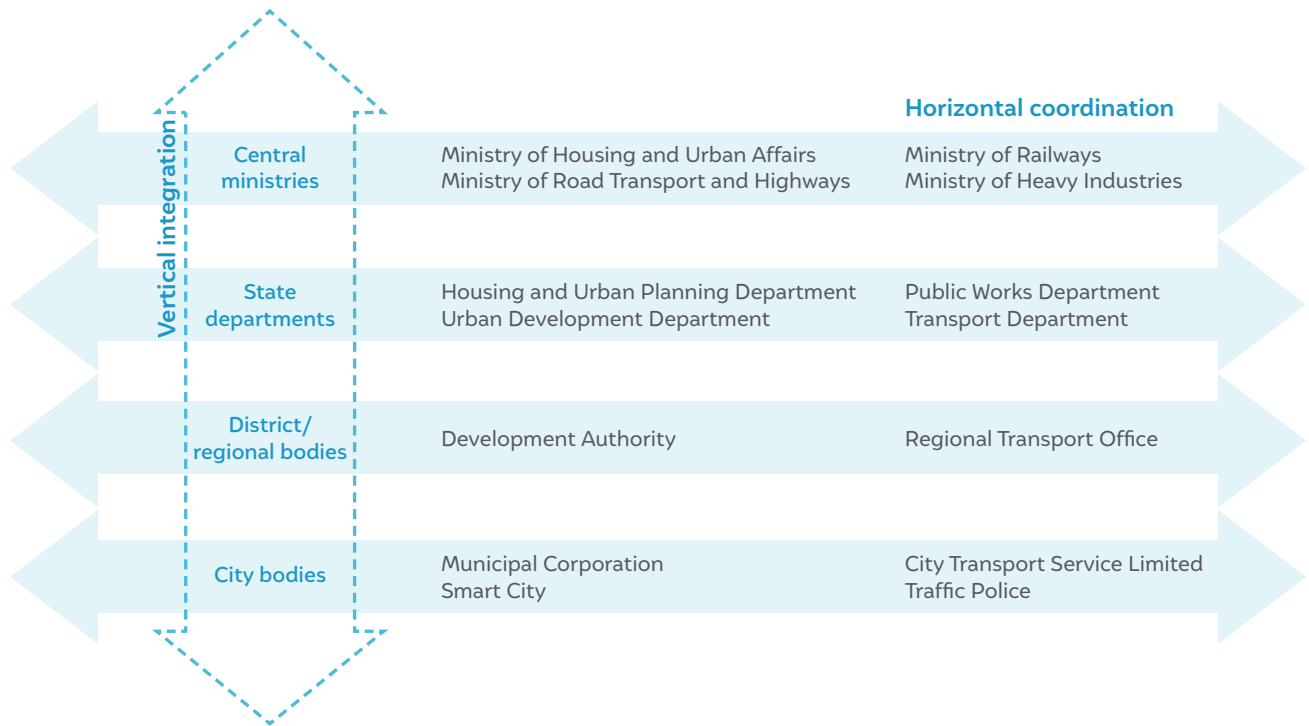
Source: Authors' analysis

Figure ES2 UMTAs under SUTA to ensure vertical integration and coordinating bodies - governing council (state level), executive council (city level) to ensure horizontal coordination
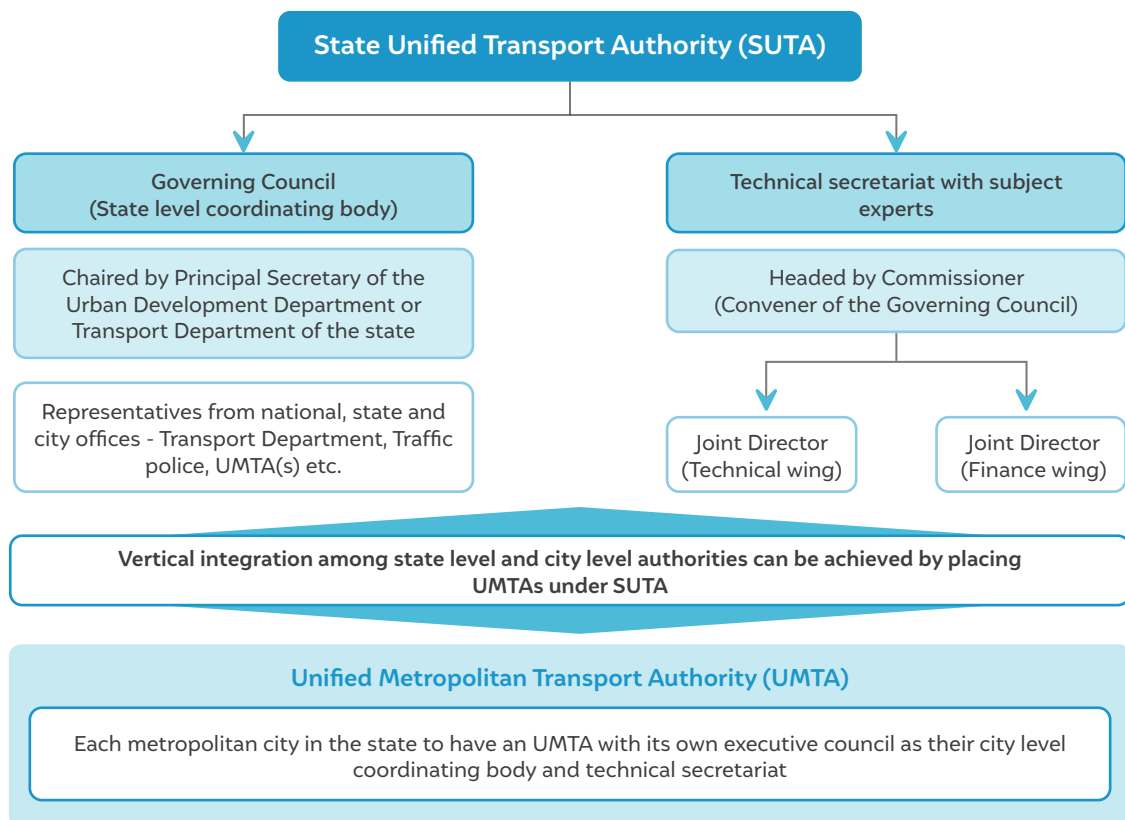
Source: Authors' analysis

Four key requisites for the SUTA framework:

1 **Provide legal powers to SUTA to exercise functions:** It is necessary for state legislation to establish the SUTA as a statutory body for it to exercise its functions and direct other departments. The SUTA can ideally be placed under the Urban Development Department or, as deemed fit, under the state's current institutional structure. This would ensure the SUTA's supremacy in decision-making and enhanced governance.

2 **Equip SUTA with a dedicated State Urban Transport Fund (SUTF):** The state shall allocate seed capital and operating expenses to establish the authority. The city urban transport budget allocations, project approvals, and monitoring shall rest with SUTA.

3 **Establish UMTAs under SUTA to enhance vertical integration:** The study proposes a framework in which all UMTAs in the state shall be formulated under SUTA and report to it. This shall bridge the gap between state-level policies and city level implementation.

4 **Establish coordinating bodies to improve horizontal coordination among departments:** The governing council at SUTA, comprising of representatives from various central, state, and city departments, will ensure interdepartmental coordination at the state level. The study recommends an executive council of the Unified Metropolitan Transport Authority (UMTA), with representation from city and regional departments, to act as a coordinating body at the city level. The proposed structure consolidates multiple UMTAs under SUTA's authority, with each UMTA having representation on SUTA's governing council (as illustrated in ES 2).

The Ministry of Housing & Urban Affairs (MoHUA) can spearhead this transformation of the institutions by introducing guidelines that advocate for establishing SUTA, along with the necessary institutional, organisational, financial, and legal structures.

Image: iStock

1. Review of existing governance framework

Cities contribute around 60 per cent of India's GDP and are considered drivers of economic growth (Baindur 2015, Chen, Hasan and Jiang 2022). These cities are further connected using urban transport systems, often creating economic nodes and complex networks.

India's urban population is expected to nearly double from 461 million in 2018 to 877 million by 2050, and with this growth, the demand for transport infrastructure will also increase (United Nations, Department of Economic and Social Affairs, Population Division 2019). The current infrastructure provision in the urban transport sector is mainly focussed on road development and larger projects, often neglecting public transport and non-motorised transport, which are considered more sustainable modes for wider and inclusive accessibility while reducing the carbon footprint and emissions (Kumar and Agarwal 2013, Rupprecht Consult (eds.) 2021).

This has resulted in poor quality of public transport, fostering an uptick in private vehicle ownership and encouraging a decrease in reliance on non-motorised modes of transportation. In the absence of integrated urban transport systems, the increasing urban population is exposed to poor air quality, compromised road safety, and issues related to traffic congestion, leading to the overall degradation of the quality of life in these urban centres (Agora Verkehrswende, GIZ 2023). Urban transport planning is complex, with multiple modes dependent on each other for seamless mobility (Planning Commission, Government of India 2014). The sector's governance remains fragmented due to its jurisdictional overlaps across various modes, and its service delivery to different economic groups. Despite the presence of multiple departments in cities, planning is often conducted independently without a common shared objective.

In this framework, there is a clear gap among the departments working in the sector, both in terms of vertical integration between the different levels of government and horizontal coordination among different departments at the same level (Kumar and Agarwal 2013). A top-down approach is currently used for urban transport planning, where smaller cities are often neglected. There is no scope for coordination with larger cities and a lack of technical capacity to plan for integrated transport systems.

## 1.1 Functional gaps and overlaps in transport planning

In India, multiple ministries, departments, and agencies work on the transport sector at the national, state, and local levels. Each mode of transport has its own ministry at the national level, with no single Act or ministry that looks at the urban transport sector comprehensively (Baindur 2015, Planning Commission, Government of India 2014)[1]. Most states currently take the regulatory role in managing the sector, along with providing public transport systems and managing necessary investments through different departments. City level departments focus on street development and maintenance without an integrated approach.

The framework has remained the same since the Planning Commission report came out ten years ago. These departments remain restricted in their functions and fail to understand the importance of a collaborative approach, and bear no accountability towards inclusively resolving transport-related issues. Multiple departments often have conflicting agenda and structural overlaps in the functions related to urban transport. Planning concepts such as land use integration, non-motorised transport planning and multimodal connectivity are absent from the overall transport planning strategies. Further, emerging technologies and the transition to electric vehicles require allocating new tasks and coordination among departments for efficient management and planning.

Multiple transport lead agencies such as Lagos Metropolitan Area Transport Authority (LAMATA) and the Transport for London (TfL) function as metropolitan authorities responsible for strategic planning and policy formation, taking a more comprehensive approach to planning urban transport systems (Ministry of Urban Development, Government of India 2016)[2].

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1. The Planning Commission of India mentioned in the study was replaced by the National Institution for Transforming India (NITI Aayog) on January 1, 2015.

2. The erstwhile Ministry of Urban Development (MoUD) and Ministry of Housing and Urban Poverty Alleviation (MoHUPA) were merged to form the Ministry of Housing and Urban Affairs (MoHUA) with effect from 6 July 2017. The study mentions MoUD, referring to the operational document for UMTA, prepared by them.

Figure 1 Existing institutional gaps and overlaps in urban transport functions
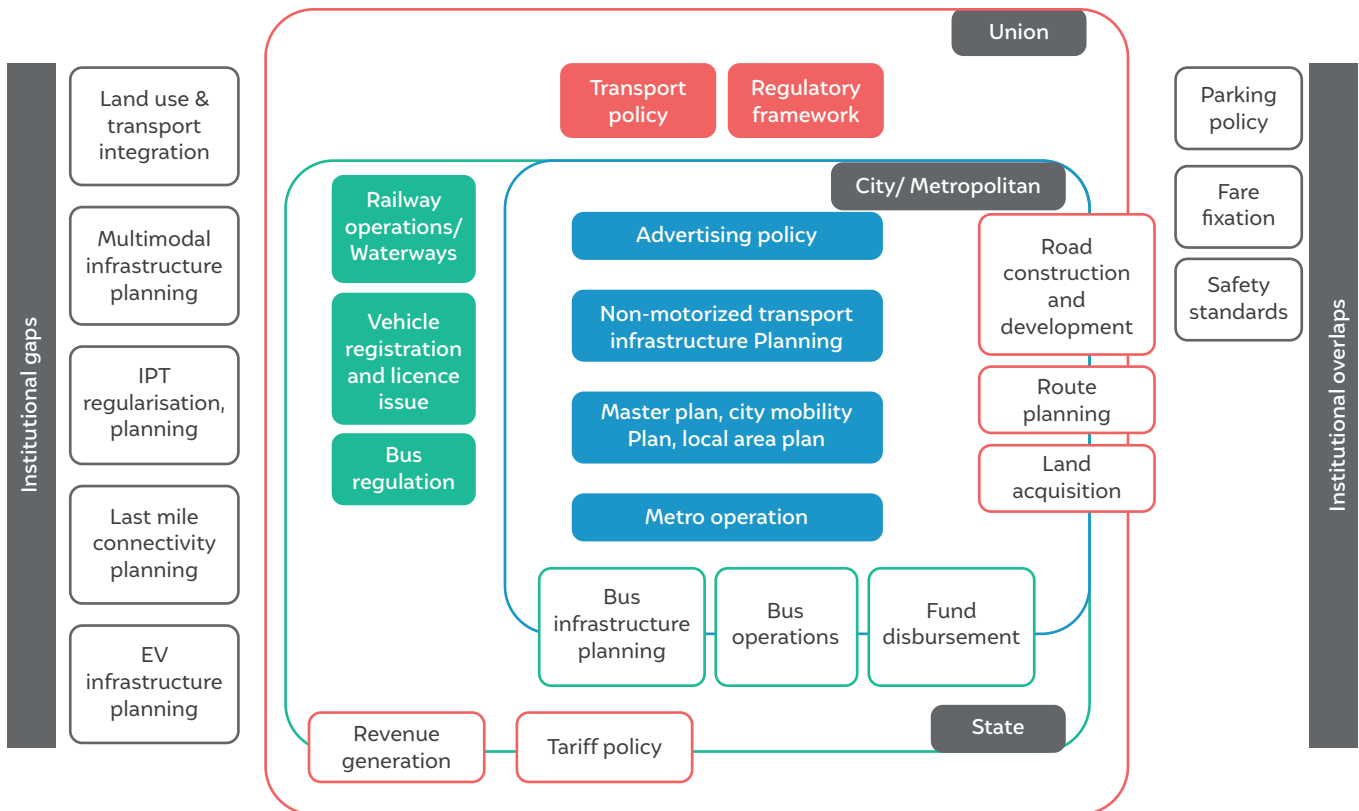
Source: MoUD, Government of India. 2016. Final Operations Document for Unified Metropolitan Transport Authority in Lucknow. Ministry of Urban Development.

These institutions have adapted to the needs of the regions they govern, and have evolved in their functions over a period of time. Over the years, with their dynamic frameworks, they have transformed into management authorities from their initial role of planning and infrastructure-providing entities (Kumar and Agarwal 2013).

1.2 Gaps in the institutional framework at the state level

In India, most states do not have any dedicated state-level body to create transport policies and provide the funds required to drive the transport sector with a common goal. As per the Seventh Schedule of the Indian Constitution, urban transport is a function of the state under urban development but is often sidelined compared to other development issues (Gijre and Gupta 2020). Hence, planning in the sector remains directionless, and focusses on the demand side of the sector.

Currently, only a few states have departments tasked with managing urban transport in their formation order, but they still need to deliver urban transport services in

an integrated manner. One example is the Directorate of Urban Land Transport (DULT) in Karnataka, which serves as the nodal agency promoting sustainable transportation modes across the state. Initially covering seven cities, DULT aims to cover all urban areas with populations exceeding 100,000. To address funding constraints and streamline project execution, DULT also manages the State Urban Transport Fund (SUTF). Furthermore, the Karnataka Non-Motorised Transport Agency (KNMTA) operates under the DULT to enhance non-motorised transport in cities. It has also established a Centre for Research and Innovation (CERI) to focus on urban mobility research. (DULT 2022).

While DULT is leading the way in driving sustainable transport solutions across the state, its formation through executive order has brought some challenges, particularly with interdepartmental coordination and authority over other departments.

Similarly, Uttar Pradesh has established a Directorate of Urban Transport (DUT) through executive orders. However, it has encountered challenges in expanding its scope due to institutional overlaps, no regulatory power, and constraints in human resources and raising funds.
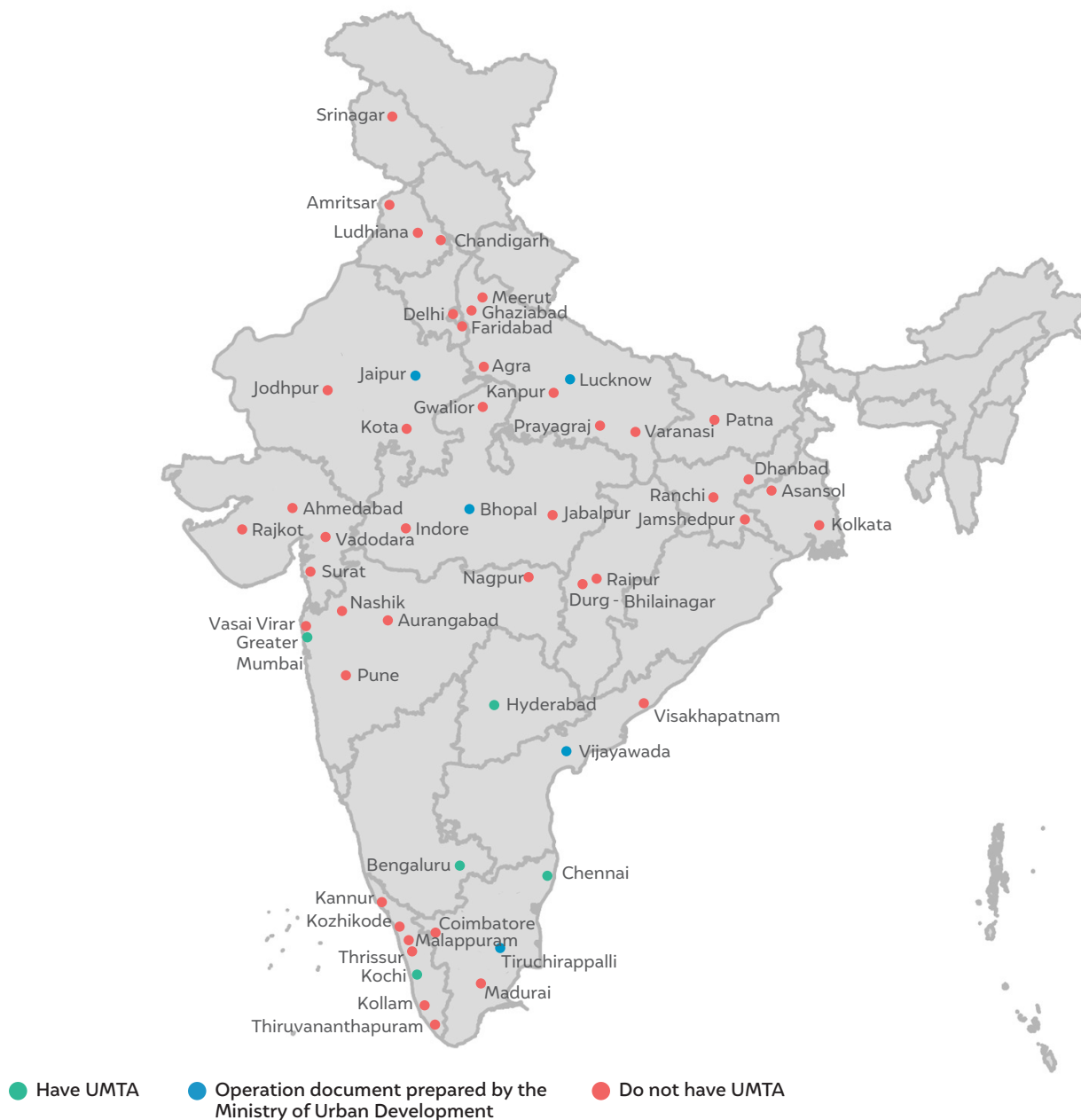
1.3 Challenges with the Unified Metropolitan Transport

The *National Urban Transport Policy (NUTP)*, 2006, directed that at the city level, Unified Metropolitan Transport Authority (UMTA) be created for million-plus cities, in order to better coordinate among various departments and plan for more localised issues in the cities. Most of the city UMTAs have merely functioned as boards and committees bridging the gaps between multiple departments but have failed to function as planning secretariats either due to paucity of funds, lack of technical capacity, or the absence of necessary powers to implement desired policies (Baindur

2015, Gijre and Gupta 2020, Planning Commission, Government of India 2014).

According to the 2011 Census, there are 53 million-plus cities in India. As shown in Figure 2, only five such cities have functional UMTAs as envisioned by the NUTP—Greater Mumbai, Chennai, Hyderabad, Bengaluru, and Kochi. The government of Maharashtra formed the authority in Mumbai using an executive order, whereas Acts of the state legislatures formed Chennai and Hyderabad UMTAs (Gijre and Gupta 2020). Bengaluru is also in the process of setting up the Bangalore Metropolitan Land Transport Authority.

Figure 2 Status of UMTA in million-plus cities in India (population according to Census 2011)

● Have UMTA   ● Operation document prepared by the Ministry of Urban Development   ● Do not have UMTA

Source: Authors' analysis

In 2016, the Ministry of Urban Development created operational documents for UMTAs in cities like Jaipur, Lucknow, Bhopal, Vijayawada and Tiruchirappalli, but the authorities have not been set up till date (Ministry of Urban Development, Government of India 2016).

The 74th Constitution Amendment Act envisaged the formation of metropolitan/district planning committees to strengthen urban local governance. The UMTAs were to report to these committees for holistic metropolitan planning and development (Gupta 2013). However, in the absence of necessary legislation for such planning committees, states have yet to make progress in reinforcing local governance (Planning Commission, Government of India 2014). Hence, in the absence of a lead agency with no legal power to direct the coordinating agency or provide necessary funds, the effectiveness of the UMTAs formed has been limited. Hence, to facilitate the exchange of ideas, information, and practical solutions to the growing problems of urban development, the present governance frameworks must move from a linear structure to one that is more interconnected and circular.

1.4 Transport-related challenges in non-million-plus cities

Almost 50 per cent of India's urban population lives in cities with populations under half a million. Also, in the past years, India has observed the fastest growth in cities with a population between 100,000 and a million. According to the 2011 Census, out of 468 Class-I cities, 415 have fewer than a million people (Planning Commission, Government of India 2014).

The lack of focus on improving public transport infrastructure in these cities has led to a rise in the modal share of private vehicles and contributed to higher travel costs, parking issues, increased congestion, and air pollution. Smaller cities' needs differ from those of larger cities, and the top-down approach of replicating solutions from larger cities cannot serve as a solution. While these cities may not necessitate coordinating bodies due to their organisational structures and relatively simpler nature, improving urban local bodies' technical capacity and financial resources remains crucial.

2. Strengthening the state-level institutional framework with SUTA

It is important to strengthen coordination across centre, state and city level of governance to reinforce the institutional framework within the transport sector. Establishing a State Urban Transport Authority (SUTA) is imperative to ensure comprehensive coordination between states and cities, as well as to fix accountability for it. The authority shall initiate policy, manage necessary budgets, and coordinate among various departments dealing with urban transport. The state authority should be able to consolidate funds from diverse sources and allocate them based on predetermined objectives.

By legislative mandates, the state shall explore different revenue streams and develop the State Urban Transport Fund (SUTF) to ensure the smooth functioning of transportation projects. This fund shall serve as a mechanism to prioritise investments within the transportation sector and should be managed by the SUTA. Moreover, the SUTA should diligently monitor the utilisation of these funds to ensure their effective deployment.

Furthermore, the SUTA must be established as a statutory body at the state level. This formal legal designation gives the authority a robust legal framework, granting it the necessary powers and responsibilities to effectively carry out its functions and duties within the transportation sector.

2.1 Jurisdiction

The SUTA should have jurisdiction over the urban areas of the entire state. It is envisioned as a statutory autonomous body with full technical and financial authority to prepare state-level policies for the transport sector. To ensure accountability and better coordination among agencies, the SUTA shall ideally function as a subsidiary of the urban development department or another relevant department, as deemed fit within each state's institutional structure. Its formation and placement shall be carefully examined at the planning stage to provide the necessary coordinating authority and institutional power to give directives.

Table 1 Roles and functions of SUTA

Policy making and project approval	• Develop state-level transport policies that will further guide mobility related initiatives across the state. • Approve projects at the state level by reviewing whether they align with the objective of the desired policy outcomes and guide UMTAs whenever required. • Preparation of policy/roadmap to achieve net zero in public transport and decarbonising the mobility sector.
Budget management	• Manage the SUTF and regulate the expenditure for transport initiatives. • This shall include resource mobilisation, treasury management, disbursements of funds, fund management, and auditing. • Provide budget allocations to UMTAs and smaller cities, and ensure required resource delivery to these cities.
Research studies and awareness	• Develop a shared database of city transport data and conduct research (independently or through collaborations) to identify challenges to the state's transport sector and enable agencies to make informed decisions. • Create awareness campaigns and ensure outreach of mobility solutions to a larger population. • Ensure continuous capacity building of employees through training, education, and research to advance their skills and knowledge about upcoming technologies.

Source: Authors' compilation based on MoUD, Government of India. 2016. Operations Document for Unified Metropolitan Transport Authority. Ministry of Urban Development.

2.2 Roles and responsibilities

The primary role of the SUTA shall be to develop and integrate state policy with the investment planning of the transport sector. The idea is to ensure that urban transport systems are planned with a shared goal and output by all the agencies in the state. It shall also oversee the functioning of UMTAs, and strengthen the technical capacity and fund allocation to non-million-plus cities.

2.3 Governing council— coordinating body at the state level

Urban transport necessitates an interdisciplinary approach, requiring the involvement of various departmental representatives to streamline decision-making and coordination. In line with this objective, the SUTA is proposed as a dedicated, full-time, independent policy making body comprising representatives from all pertinent departments.

The SUTA's governing council, chaired by the state's chief secretary, shall be the decision-making body with multiple stakeholders from the transport sector. Funds and decisions concerning the SUTF are subject to clearance from the chief minister's office, in order to engage the state government in this process. The member secretary, ideally the additional chief secretary or principal secretary of the Urban Development

Department, shall manage council operations. The council, including representatives from relevant departments, academia, and technical experts, shall convene at least twice a year to make key decisions. It shall also address disputes regarding city level funding sources, if necessary. The SUTA Commissioner shall facilitate coordination among UMTAs, ensuring efficient execution of assigned tasks.

The governing council shall comprise of:

- **Chairperson:** The chief secretary of the state shall head the SUTA.

- **Members:** These shall be government officials from various state and city level departments. Members shall be appointed according to their designations in the representative department, as listed in Table 2. They shall exercise the power to represent their respective departments and provide support and expertise wherever required.

- **Special invitees:** Officials such as those from central departments might be required to make decisions in cases of overlapping responsibilities. They might be invited in case an instance requires their presence.

- **Essential invitees:** Experts from other fields indirectly related to urban transport, namely law, finance, beneficiary groups, etc.

Table 2 Proposed composition of SUTA's governing council

S. No.	Designation	Type of representation in the council (Chairperson/member/special invitee/ essential invitee)
	Representation from the state/local level	
1.	**Chief Secretary of the state**	Chairperson
2.	**Principal Secretary,** Urban Development Department or similar	Member secretary
3.	**Secretary/Additional Chief Secretary,** Housing & Urban Planning Department	Member
4.	**Secretary,** Department of Finance Services	Member
5.	**Superintendent Engineer,** Public Works Department	Member
6.	**Transport Commissioner,** Transport Department	Member
7.	**Principal Secretary,** Home Department	Member
8.	**Director,** Directorate of Urban Transport or similar	Member
9.	**Director,** Directorate of Urban Local Bodies or similar	Member
10.	**Managing Director,** State Road Transport Corporation	Member
11.	**Managing Director,** Metro Rail Corporation (if any)	Member
12.	**Principal Secretary,** Department of Environment, Forest and Climate Change	Member
13.	**Chairperson,** State Power Corporation	Member
14.	**Chief Town Planner,** Town and Country Planning Department	Member
15.	**Chief Executive Officer,** UMTA	Member
16.	**Managing Directors of City Bus Transport Corporations**	Special invitees
17.	**CEO,** Smart City	Special invitee
18.	**Member Secretary,** State Pollution Control Board	Special invitee
19.	**Island Development Authority**	Special invitee
	Representation from the central government	
1.	**Project Director,** National Highways Authority of India	Special invitee
2.	**General Manager,** Indian Railways	Special invitee
3.	**Representative of Airports Authority of India**	Special invitee
4.	**Representative of Ministry of Housing & Urban Affairs**	Special invitee
5.	**Representative of Land Port Authority of India (if applicable)**	Special invitee
6.	**Representative of Cantonment Board**	Special invitee
	Non-governmental representation	
1.	**Corporate governance, law and finance experts** (as nominated by council)	Essential invitee
2.	**Urban transportation expert** (as nominated by council)	Essential invitee
3.	**Representative(s) of urban transport institutions** (as nominated by council)	Essential invitee
4.	**Representative(s) of public transport beneficiaries** (as nominated by council)	Essential invitee
5.	**Citizen groups' representatives** (as nominated by council)	Essential invitee

Source: Authors' compilation based on MoUD, Government of India. 2016. Operations Document for Unified Metropolitan Transport Authority. Ministry of Urban Development.

2.4 Technical secretariat to support SUTA

The SUTA's technical secretariat shall be overseen by a new commissioner or equivalent designation, who shall be appointed by the state and have substantial experience in the urban transport sector. The commissioner shall assist the governing council of the SUTA. Additionally, specialised wings shall be established to undertake the authority's functions. It is essential to recruit a cadre of highly experienced and professional personnel for the effective execution of functions.

Various transport agencies have grown to become large institutions, often combining insourcing and outsourcing certain functions. Such institutions' scale usually depends on the roles and responsibilities taken up by the authority (Kumar and Agarwal 2013). States need to provide the necessary incentives to pool together experts from varied backgrounds, who can work together and build on transformative solutions in the sector. Research and development require further investment to make these authorities competitive globally, and tap into the financial potential of large-scale transport systems (Planning Commission, Government of India 2014).

Figure 3 Organisational structure of SUTA's technical secretariat
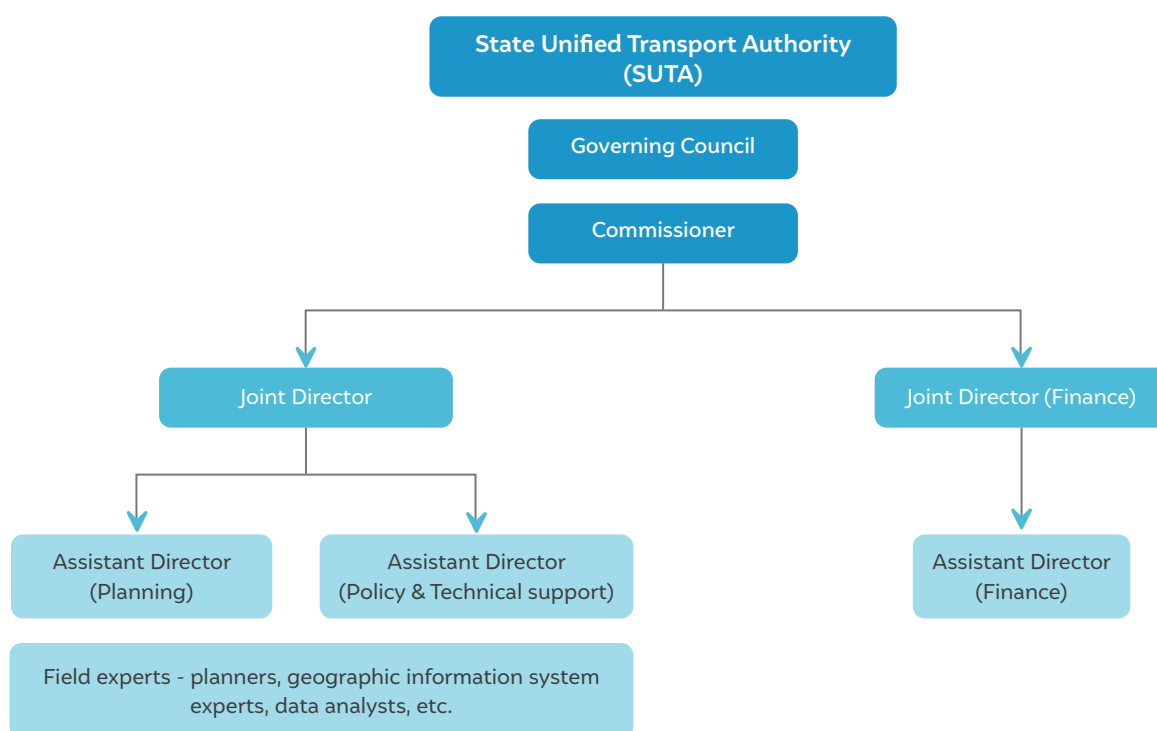

Source: Authors' compilation based on MoUD, Government of India. 2016. Operations Document for Unified Metropolitan Transport Authority. Ministry of Urban Development.

3. UMTAs as subsidiary units of SUTA

Decentralising the institutional structure at the city level can be achieved by establishing UMTAs, with million-plus cities acting as hubs to address the transport-related concerns within their respective geographies. Metropolitan planning helps to tap into the potential of transportation at a larger scale, connecting nearby centres and facilitating intercity urban transport systems (Planning Commission, Government of India 2014). Hence, understanding these systems at a metropolitan scale can further help UMTAs to assist and advise the SUTA in policy formation.

3.1 Jurisdiction and functions of UMTAs

Administrative boundaries do not bind people's mobility patterns, but are subject to their origin and destination (Kumar and Agarwal 2013). Hence, it is necessary to review these patterns before defining the jurisdiction of UMTAs.

The SUTA shall determine the jurisdiction of UMTAs, based on the guidelines in the existing operation document for their formation prepared by the Ministry of Urban Development (now Ministry of Housing and Urban Affairs, or MoHUA) in 2016. These areas might be extended or combined with large cities nearby to facilitate regional mobility planning and ensure provide seamless mobility.

The UMTAs shall take the role of strategic planning and implementation at the city level, incorporating local data to address issues proactively. As the coordinating agency, it shall resolve disputes and coordinate the implementation of city level projects. Additionally, the UMTAs shall assist, aid, and advise the SUTA on their city's current and future requirements for comprehensive, integrated, and efficient transport policies in the state.

3.2 Executive council—coordinating body at the metropolitan level

To facilitate metropolitan-level departmental coordination, the UMTA shall have an executive council with necessary representatives from all state and city level departments. The executive council shall be headed by the divisional commissioner or district collector/magistrate as the chairperson. The respective UMTA's CEO shall be the council's member secretary. As for the composition of the executive council, the operational document for the formation of UMTAs lists various representatives from central, state, and local-level departments (Ministry of Urban Development, Government of India 2016). However, to streamline the representatives at the local level, the state and central-level representatives should be part of the SUTA governing council, as listed in Table 2. Therefore, UMTA's executive council shall have more local/regional representatives and only necessary state/central representatives, as described in Table 3.

Table 2 and 3 features an exhaustive list of both state and city level representatives. However, each SUTA must map out all stakeholders who need to be part of the decision-making process.

3.3 Technical secretariat of UMTA

The executive council of each UMTA shall be assisted by a city level organisation headed by a CEO. The authority should have function-based divisions that coordinate with other divisions to achieve the desired outcomes. The operational UMTA document gives a detailed structure of such a secretariat, though it is necessary to understand the existing departments in the city before setting up a new secretariat. A comprehensive understanding, in consultation with the existing departments, of the existing roles and responsibilities of these departments will help avoid overlapping functions and jurisdictions.

The idea is to build organisations that facilitate systems enabling holistic planning and management. Hence, the formation of such institutions must be collaborative and goal-driven. Authorities such as the Land Transport Authority in Singapore and Transport for London have taken years to develop their functions and structures, so that they can play a meaningful role today (Kumar and Agarwal 2013). Hence, to create a successful institution, one must provide the enabling framework to evolve and sustain it as an institution that delivers its functions in time.

> **UMTAs to be formed under SUTA to bridge the gap between state-level policies and city level implementation.**

Table 3 Proposed government representatives required in UMTA's executive council

S. No.	Designation/ Department	Proposed by ministry's operational document	Proposed representatives in the executive council	Type of representation in the council (Chairperson/ member/special invitee/ essential invitee)
Representation from the District/ local level			
1.	**Deputy Commissioner/District Collector/District Magistrate**	✗	✓	Chairperson
2.	**CEO of respective UMTA**	✗	✓	Member secretary
3.	**Municipal Commissioner or Commissioners** (in case of multiple municipalities)	✓	✓	Member
4.	**Vice-chairman,** Development Authority	✓	✓	Member
5.	**Regional Manager,** State Road Transport Corporation	✓	✓	Member
6.	**CEO, Smart City or Cities** (if any)	✗	✓	Member
7.	**Divisional Railway Manager**	✓	✓	Member
8.	**Chief Town Planner,** Development Authority	✓	✓	Member
9.	**Chief Engineer, Public Works Department** (of all divisions in urban mobility area)	✓	✓	Member
10.	**Representative of Housing Department**	✗	✓	Member
11.	**Finance Controller,** municipal corporation(s)	✗	✓	Member
12.	**Regional Transport Officer**	✓	✓	Member
13.	**Representative of City Bus Transport Corporation**	✓	✓	Member
14.	**Representative of Traffic Police**	✓	✓	Member
15.	**Chief Engineer,** Water Department	✓	✓	Member
16.	**Two executive officers from Urban Local Bodies** (as nominated)	✗	✓	Member
17.	**Metropolitan/District Planning Committee** (if any)	✓	✓	Member
18.	**CEO,** Cantonment Board	✓	✓	Special invitee
19.	**Mayor or Mayors** (in case of multiple municipalities)	✗	✓	Special invitee
Representation from the State/Central			
1.	**Representative of National Highways Authority of India**	✓	✓	Special invitee
2.	**Representative of State Pollution Control Board**	✓	✓	Special invitee
3.	**Representative of Inland Waterways Authority of India** (if applicable)	✓	✓	Special invitee
4.	**Representative of Metro Rail Corporation** (if any)	✓	✓	Special invitee
5.	**Chief Engineer,** Power Corporation	✓	✓	Special invitee
6.	**Representative of Airports Authority of India**	✓	✗	--

7.	Representative of Ministry of Housing and Urban Affairs	✔	✘	--
8.	Representative of State Urban Development Department	✔	✘	--
9.	Representative of State Town and Country Planning	✔	✘	--
10.	Department of the state	✔	✘	--
11.	Representative of Finance Department	✔	✘	--
12.	Representative of Port Trust/ Authority (if applicable)	✔	✘	--
13.	Representative of State Irrigation Department	✔	✘	--
14.	Representative of Island Development Authority (if applicable)	✔	✘	--
Non-governmental representation				
1.	Representative of Taxi or similar transport-related associations (as nominated by council)	✘	✔	Special invitee
2.	Representative of Corporate governance, law and finance experts (as nominated by council)	✔	✔	Essential invitee
3.	Representative of Urban transportation expert (as nominated by council)	✔	✔	Essential invitee
4.	Representative of Cyclist/pedestrian welfare groups (as nominated by council)	✔	✔	Essential invitee
5.	Representative of Public transport beneficiaries (as nominated by council)	✔	✔	Essential invitee
6.	Representative of Academic institutions/NGOs (as nominated by council)	✘	✔	Special invitee

Source: Authors' compilation based on MoUD, Government of India. 2016. Operations Document for Unified Metropolitan Transport Authority. Ministry of Urban Development.

| BOX 1	Case study – a SUTA for Uttar Pradesh

The DUT functions under the state's Urban Development Department. It was established to oversee urban transport issues, including the assessment, monitoring, control, and distribution of viability gap funding to various special purpose vehicles across the state. The DUT serves as the nodal agency for planning, executing, and managing the city bus system across UP. However, since it was formed by an executive order, it needs more funds, human resources, and authority to direct other departments. The DUT primarily looks into bus transport and procurement of buses across the state.

An independent state transport body, with greater authority and resources, is required to bridge these gaps and facilitate detailed guidelines for setting the state's transportation sector priorities. This is where a new UPUTA comes in.

Formation of UPUTA

At present, Uttar Pradesh has seven metropolitan cities—Lucknow, Kanpur, Agra, Ghaziabad, Prayagraj, Varanasi, and Meerut. Each has its own set of priorities driven by the city administration. Moreover, there are 24 departments at various levels that look into the transport sector, with partially overlapping functions, responsibilities, and geographies. Due to jurisdictional overlaps, lack of financial and human resources, and limited authority to make decisions, most departments work in silos without an integrated approach. Hence, establishing a Uttar Pradesh Unified Transport Authority (UPUTA) is imperative to strategise and implement inclusive transport solutions. This proposed entity shall be mandated to formulate policies aimed at fostering connectivity between urban hubs and small- and medium-sized towns, ensuring a cohesive mobility framework.

Figure 4 Proposed institutional framework for Uttar Pradesh
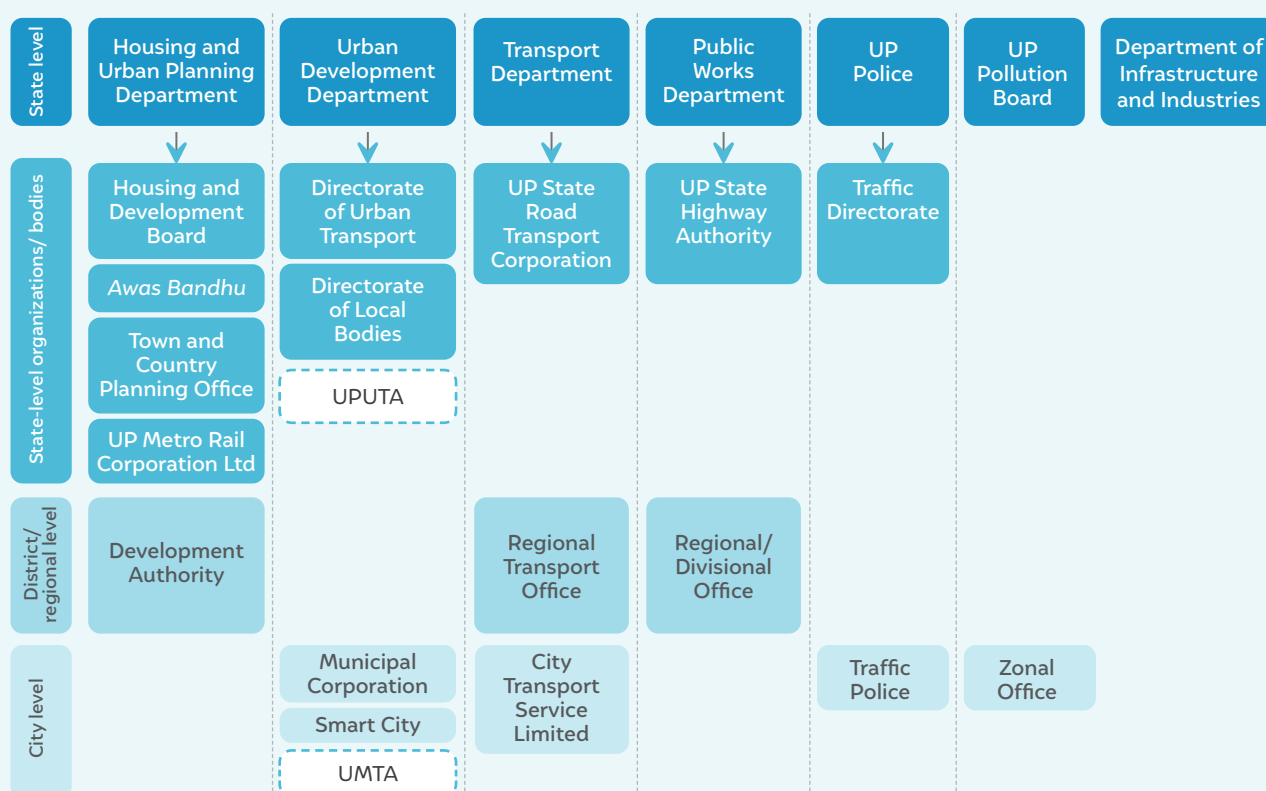
Source: Authors' analysis

Proposed organisational structure of UPUTA & UMTAs

The proposed UPUTA shall be led by a new commissioner or equivalent designation with prior experience in the transport sector, who shall be appointed by the government of Uttar Pradesh. The UPUTA's technical secretariat will assist the state's governing council.

At the city level, each UMTA shall be overseen by a CEO-level official appointed by the state government. These seven UMTAs are obligated to report periodically to the UPUTA regarding progress, challenges, and unresolved disputes that exceed the purview of their respective executive councils. The UPUTA shall also allocate funds to the seven UMTAs and make decisions independently if any city or town requires special attention.

Note: This case study was prepared in consultation with the Directorate of Urban Transport, Uttar Pradesh, and the Regional Centre of Urban & Environmental Studies.

4. Financial and legal strengthening of SUTA and UMTA

The transport sector is budget-intensive, and hence, requires a fund dedicated specifically to urban transport development. The State Urban Transport Fund (SUTF) shall financially strengthen the SUTA, allowing it to make the required decisions, and allocate funds. The SUTF shall ensure the effective dispersal of money, with the accountability that the fund is being used exclusively for the desired output.

The SUTF can even look for other funding sources outside the dedicated revenue streams, markets, and financial institutions. It shall also provide subsidies required to promote public transport systems. To strengthen them financially, SUTA can allocate tranches from the SUTF to the UMTAs and urban local bodies. This shall ensure effective management of the available funds, and transparency and accountability in their utilisation.

4.1 Existing SUTFs in India

Some Indian states already have SUTFs to aid in developing transport infrastructure, which is managed by different departments. For example, the SUTF of Karnataka mobilises funds using budget allocation from the state, cess on motor vehicles, and property taxes. An empowered committee at the state's Directorate of Urban Land Transport (DULT) is responsible for the

management and oversight of the funds (DULT 2022). Departments submit their proposals for the DULT's review and approval through an online portal, making the process smoother. This has resulted in the successful completion of multiple projects in the state, including the construction of bus terminals, procurement of buses by the state transport agencies, etc. The DULT is able to mobilise funds effectively thanks to the sufficiency of money, faster clearance procedures and an empowered committee to make decisions.

On the other hand, in Rajasthan, the transport fund includes a cess on one-time motor vehicle tax, a cess as a green tax on the registration of old and new vehicles, and a cess on stamp duty, in addition to state and central allocations. The fund is distributed among the local self-government and transport departments, which is used for developing road infrastructure and providing loans to bus agencies in Jaipur and Ajmer (Sharma n.d.). In the absence of a state policy and dedicated body to administer these funds, Rajasthan is working in a piecemeal manner with no vision to improve the service delivery of urban transport. An agency like SUTA can help Rajasthan with fund management and better utilisation of funds to improve the quality of urban transport.

A draft bill in Assam includes allocations from donor agencies as well as state and central agencies. This bill needs to give the state authority more power to generate its own revenue from local sources, such as cess on motor vehicle tax, property tax, etc. (PRS India 2022).

Image: iStock

Table 4 Existing urban transport funds and their sources

| City/state	Governing body	Fund management	Sources of fund
Karnataka	Urban Development Department, Government of Karnataka	DULT, empowered committee	• 1 per cent cess on motor vehicle tax. • 2 per cent cess on property tax. • Budget allocation. (DULT 2022)
Rajasthan	Government of Rajasthan	Fund management committee	• Cess on one-time tax levied on motorised vehicles under Rajasthan Motor Vehicles Act, 1951. • Cess in the form of a green tax imposed on the registration of old and new vehicles. • Cess on stamp duty under Rajasthan Stamps Act. • Funds from central or state government. • Funds received from industries to carry out social responsibilities. (Sharma n.d.)
Assam	Government of Assam	Assam UMTA	• Any grant/fund received through allocations from state/central governments. • Funds through allocation by any other agency, including donor agencies. • Revenue collected from other innovative sources. (PRS India 2022)
Uttar Pradesh	Urban Development Department, Government of Uttar Pradesh	Directorate of Urban Transport, Uttar Pradesh	• From the stamp duty levied on immovable property, 2 per cent is given to Urban Development Department, of which 0.5 per cent is allocated to SUTF. (Directorate of Urban Transport, Government of Uttar Pradesh n.d.)

Source: Authors' analysis

In Uttar Pradesh, the DUT gets a part of the dedicated Urban Transport Fund (UTF). However, this is a limited amount that can't drive the state's urban transport systems. The DUT, an administrative body, does not have the necessary authority to increase these financial resources, and hence, focusses only on bus operations within the state. Limited human resources and technical capacity limit the scope of DUT in utilising the UTF. Since the DUT will require legal restructuring to procure more funds, the formation of a SUTA with a dedicated SUTF can provide the necessary technical resources and help increase the funds required to manage urban transport. (Directorate of Urban Transport, Government of Uttar Pradesh n.d.). Other states like Gujarat have taken the lead in providing viability gap funding to promote public transport infrastructure services at the city level. Gujarat has provided the viability gap funding under the *Chief Minister Urban Bus Service (CMUBS) Scheme* in the form of operation cost in public-private

partnership mode. The scheme covers eight municipal corporations and 22 Class A municipalities (WRI India 2021). The formation of a SUTA can help in providing such financial assistance at a scale, as well as a more robust funding system with better monitoring.

4.2 SUTA can leverage SUTF for larger policy vision and goals

Potential sources of funds for SUTFs are listed in Figure 5. Some funds can be in the form budgetary allotments from central or state schemes, cess on vehicles or fuel, extra charges on services, or borrowings from domestic and international financial institutions. National and state finance commission funds can also be explored. The state government may further look at the degree of funds required and make necessary arrangements to enhance their flow under the SUTF.

Figure 5 Potential sources of funds for SUTF
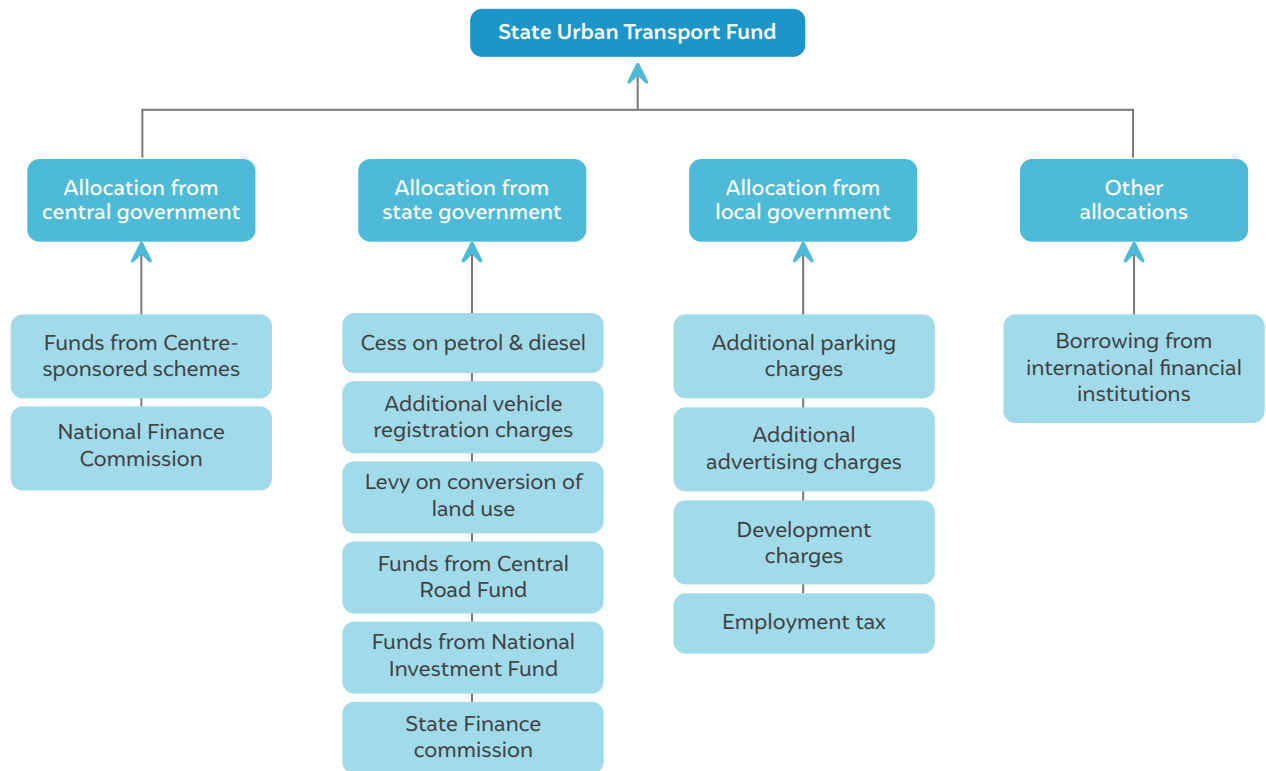
Source: Authors' compilation based on MoUD, Government of India. 2016. Operations Document for Unified Metropolitan Transport Authority. Ministry of Urban Development.

The SUTF shall be granted an initial corpus from the state budget, which shall take into account the funds required to establish the SUTA. The state shall further access these resources, review the financial, social, political, and administrative implications of each source, and then decide upon the final sources of funds for the authority.

The exercise is necessary to identify and finalise the percentages to be applied to each resource, and to study individuals and industries' acceptance and opposition to these measures. Further, the legal implications of forming a SUTA need to be reviewed, in order to reduce the overlap among different departments' roles and powers and understand how to amend current laws. This can ensure a smooth flow of funds to the SUTF.

4.3 Legal powers to facilitate coordination

Unified transport authorities, when established through legal procedures, have the power to make vital decisions and issue directives to other departments. Conversely, departments created via executive orders need more

legal empowerment, because they frequently encounter challenges in making crucial decisions to ensure efficient delivery of transport-related solutions.

Multiple transport agencies, such as Paris's Syndicat des transports d'Île-de-France (STIF), Vancouver's Translink, and Lagos's LAMATA, have succeeded due to sufficient fund allocations and the necessary legal power to allocate funds and facilitate coordination among agencies (Kumar and Agarwal 2013). Hence, establishing such authorities with the required financial and legal power is crucial to ensure they successfully initiate policy changes.

To ensure the effective functioning and accountability of such authority, the SUTA and UMTAs shall be formed by the state legislature, which shall detail the powers, responsibilities, jurisdiction, and organisational structure of these departments, and set the guidelines for their operations. Based on the suggested structure above, a bill can be drafted and presented in the state assembly, and following the due process, become an Act.

5. Conclusion

Transportation catalyses economic development within urban areas, but its association with air pollution and other urban challenges necessitates a balanced approach. Implementing integrated frameworks and dynamic transport governance systems is crucial to harnessing economic benefits, alongside sustainable development. A cohesive and robust transport governance system requires adequate human resources, financial support, and legal authority to deliver its functions. The central government needs to lead in developing policy guidelines to facilitate this integration.

It is important to recognise that each state and city has developed unique agencies to deliver its functions. Therefore, establishing state-level authorities requires a comprehensive understanding of the existing institutional framework at all levels. Finding a universally applicable solution is challenging, so it is advisable to adapt relevant frameworks to address local governance challenges effectively. This can be achieved through collaborative consultations with relevant stakeholders.

Establishing a dedicated SUTF is crucial to driving the necessary transformations. Initially, the state can provide seed capital for the formation of the SUTA, but then, it should aim to diversify sources of funding to ensure the smooth functioning of the operations of the SUTA and UMTAs and to support policy making and project implementations in the state.
Additionally, the legal implication of establishing such an authority needs to be reviewed. A thorough review can help understand how the formation of a SUTA interrelates with the existing laws and Acts, especially in terms of potential overlaps in roles and powers. This examination will provide insights into any adjustments or amendments needed to streamline operations and avoid conflicts between the new authority and existing legal frameworks.

When an authority is restructured or established, it takes time to mature into an effective agency. Once established, these authorities must assume their roles and responsibilities, gradually evolving into institutions with a comprehensive vision for overseeing the transport sector. Transparent, participatory, and accountable mechanisms within these established authorities can ensure the efficient and effective delivery of transport systems.

Image: iStock

Acronyms

CEO	Chief Executive Officer
DULT	Directorate of Urban Land Transport, Karnataka
DUT	Directorate of Transport, Uttar Pradesh
GDP	gross domestic product
KNMTA	Karnataka Non-Motorised Transport Agency
LAMATA	Lagos Metropolitan Area Transport Authority
NHAI	National Highways Authority of India
NUTP	National Urban Transport Policy
PWD	Public Works Department
STIF	Syndicat des transports d'Île-de-France
SUTA	State Unified Transport Authority
SUTF	State Urban Transport Fund
TfL	Transport for London
UMTA	Unified Metropolitan Transport Authority
UTF	Urban Transport Fund
UDD	Urban Development Department

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Complete streets provide safe infrastructure for all road users, including pedestrians, bicyclists, motorists, etc.

Image: iStock

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