



सत्यमेव जयते



**MINISTRY OF URBAN DEVELOPMENT
GOVERNMENT OF INDIA**

FINAL OPERATIONS DOCUMENT FOR UNIFIED METROPOLITAN TRANSPORT AUTHORITY IN LUCKNOW



**DEVELOPING OPERATIONS DOCUMENTS FOR
UNIFIED METROPOLITAN TRANSPORT AUTHORITY
(UMTA) AND URBAN TRANSPORT FUND (UTF)
PC1B1**



MAY 2016



The **Ministry of Urban Development** is the apex authority of Government of India at the national level to formulate policies, sponsor and support programmes, coordinate the activities of various Central Ministries, State Governments and other nodal authorities and monitor the programmes concerning all the issues of urban development in the country.



Sustainable Urban Transport Project (SUTP), an initiative of the Ministry of Urban Development, launched in May 2010, is a sequel to adoption of National Urban Transport Policy (NUTP), 2006. SUTP aims at building capacity in Indian cities and pilot projects with the concept of “priority for moving people, not vehicles”. It is financed by Government of India/ participating States & Cities and aided by World Bank, GEF and UNDP. The project’s funding, about INR 17.5 billion, is used in building capacity in Transport planning pan India and demonstration of six projects in different cities. Under technical assistance component of SUTP to improve National, State and local capacity to implement NUTP, various guidance documents are being developed and this operations document is a part of the same.

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LIST OF ABBREVIATIONS

AT	Auckland Transport
BRTS	Bus Rapid Transit System
CAG	Comptroller and Auditor General
CEO	Chief Executive Officer
CFI	Consolidated Fund of India
CMP	Comprehensive Mobility Plan
CPSE	Central Public Sector Enterprises
CRF	Central Road Fund
DPR	Detailed Project Report
DRUCC	Divisional Railway Users' Consultative Committee
ERP	Electronic Road Pricing
FMD	Fund Management Division
GAAP	Generally accepted accounting principles
GoI	Government of India
ICAI	Institute of Chartered Accountants of India
IFI	International Financial Institution
IFRS	International Financial Reporting Standards
INR	Indian Rupee
ITS	Intelligent Transport Systems
LAMATA	Lagos Metropolitan Area Transport Authority
LNN	Lucknow Nagar Nigam
LDA	Lucknow Development Authority
LTA	Land Transport Authority
LTF	Local Transport Fund
MBTA	Massachusetts Bay Transportation Authority
MoU	Memorandum of Understanding
MoUD	Ministry of Urban Development
MRTS	Mass Rapid Transit System
MYP	Multi-year programme
NIF	National Investment Fund
NREGS	National Rural Employment Guarantee Scheme
NUTP	National Urban Transport Policy
NZTA	New Zealand Transport Authority
PPP	Public Private Partnership
PSB	Public Sector Bank
PTA	Public Transportation Account
RGVY	Rajiv Gandhi Gramin Vidyutikaran Yojana
SMRT	SMRT Corporation Ltd
SPV	Special Purpose Vehicle
STIF	The Syndicat des transports d'Île-de-France
STU	State Transport Undertaking
TfL	Transport for London
ULB	Urban Local Bodies
UMTA	Unified Metropolitan Transport Authority
UP	Uttar Pradesh

UTF	Urban Transport Fund
VfM	Value for Money
VT	Versement Transport
ZRUCC	Zonal Railway Users' Consultative Committee

1. INTRODUCTION

1.1 INTRODUCTION

Urban transport is a crucial component of urban infrastructure and a lifeline for cities. A well-planned and developed transportation system is integral to economic and social activity and is a key facilitator in urban economic growth. In India, multiple agencies are responsible for urban transport at the national, state and city levels of the government. There exist overlaps and gaps in the functions of these agencies. Multiple laws both at the Central and State Government levels affect the efficiency of urban transport systems. Besides, in India, there is no comprehensive law that covers all aspects of urban transport. Thus, the problem at the legislative level is two-fold i.e. structural overlap and structural gap that manifests itself in the current fragmented institutional setup.

In 2006, the Government of India (GoI) through the Ministry of Urban Development (MoUD) released National Urban Transport Policy (NUTP), as a response to the growing transport challenges. The main features of NUTP 2006 are:

- Integrated land-use and transport planning
- Promoting the use of public transport in the face of growing urban transport demand
- Promoting non-motorised transport such as walking and cycling
- Equitable allocation of road space
- Use of cleaner and more efficient technologies in the urban transport sector
- Use of innovative financing mechanisms
- Capacity building of state and city officials and other stakeholders

NUTP 2006, inter-alia, recommends the creation of a Unified Metropolitan Transport Authority (UMTA) in all million plus cities to facilitate more co-ordinated planning and implementation of urban transport programmes and projects. It envisages UMTA to manage integrated urban transport systems. According to the Working Group Recommendations on Urban Transport for 12th Five Year Plan, UMTA is envisaged as a full time professional body working under a city council with representation from all city agencies and stakeholders including the surrounding region. It would holistically overlook and approve proposals by city agencies such as municipal corporation(s)/municipality(s), development authority, transport department and traffic police, their strategy and policy functions, regulatory functions, transport demand management, organizing urban transport services, providing common services, resolution of day-to-day matters and monitor the work assigned to these implementing agencies. For UMTA to be effective at the city level, the legal and regulatory framework present at this level should support its existence.

In this context, this chapter describes the evolution of the concept of UMTA and benefits expected to result from its creation. MoUD appointed consultant Deloitte Touche Tohmatsu India Limited Liability Partnership (erstwhile Deloitte Touche Tohmatsu India Private Limited) to assist cities in establishing or strengthening UMTA by development of city specific operations documents and

other supporting material. This chapter outlines the purpose and potential application of these resources.

1.2 THE NEED FOR UMTA

The need for UMTA emanates from major demand-side challenges putting a pressure on the existing pool of urban transport facilities and services in Indian cities. It also derives from structural, supply-side inadequacies prevalent in the system of governance and legislation in India. Both these factors have been discussed below.

Increased demand for transport in Indian cities

India is getting urbanized at a fast pace. New metropolitan areas are emerging and cities are expanding. In order to facilitate the smooth movement of people and goods from one end of the city to another, it is imperative that the transport system in place becomes increasingly efficient as the size of the city increases.

The demand for transport in most cities has increased substantially in recent years due to a variety of reasons:

- Burgeoning population as a result of both natural growth and migration from rural areas and smaller towns. This puts increased pressure on roads and public transport services.
- High concentration of employment activities in cities elevating the demand for transport
- Rising incomes accompanied by changing lifestyles and preferences
- Urban sprawl, leading to expansion of urban area to accommodate the population growth. This increases the amount of travel people need to undertake.

The consequences of increased travel demand in the face of limited urban transport facilities and services are numerous:

- It has resulted in expanding pressure on often insufficient, deteriorated and poorly managed urban transport systems.
- Increased motorisation has led to issues like congestion, travel delays, loss of productivity, excessive fuel consumption, deterioration in the quality of air, noise pollution and an increased number of road accidents and fatalities.
- Limited accessibility to employment, services, education and other opportunities, in turn, has caused problems of social exclusion by preventing people from participating in work or learning, or accessing healthcare, food, shopping and other key activities.

These problems call for urgent attention and concerted action required to be undertaken to renew the existing system of urban transport.

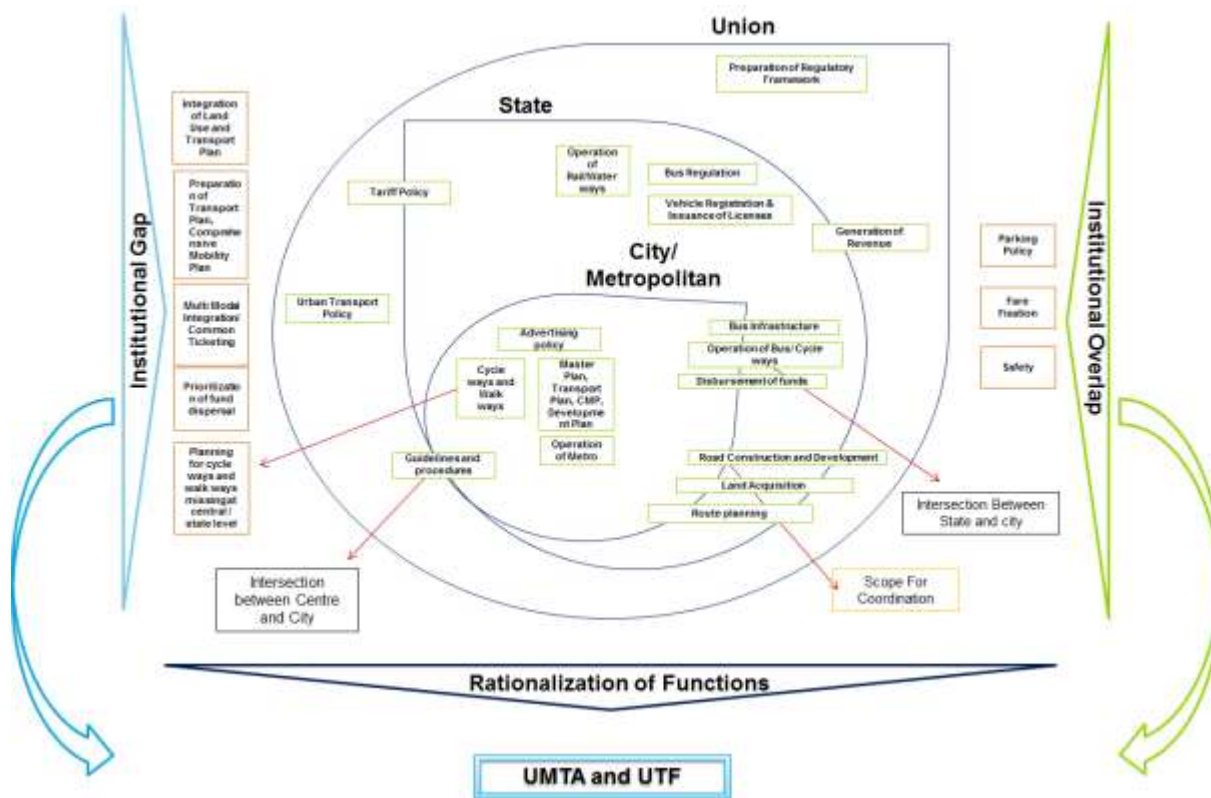
Structural inadequacies in planning urban transport

Presently, there is no legislation that covers the demand for urban transport comprehensively. Instead, there exist multiple rules and regulations at the Central and State Government levels that affect urban transport either directly or indirectly. These complexities get further aggravated by the multiplicity of authorities/departments involved, often with conflicting agendas and inadequate

or ambiguous understanding of the variety of issues relating to urban transport. Thus, responsibilities of the Centre and States remain fragmented, thereby, hindering the development of integrated and sustainable urban transport systems.

In Exhibit 1 below, intersections among different levels of government demonstrates the sequenced flow from policy to implementation. Certain functions such as land acquisition, route planning, etc. are carried out by agencies at all three levels, while others overlap between two levels of government. There exist certain functions such as integration of land-use and mobility plan, multi-modal integration, etc. for which no single agency is responsible, leading to gaps in the institutional framework. Therefore, better coordination across these three levels would lead to better execution of these functions.

Exhibit 1 Institutional gaps and overlaps in urban transport



Apart from the problems in institutions governing urban transport, it is important to recognise that tackling the challenges in the urban transport sector in Indian cities requires substantial investments. However, due to the lack of recognition of urban transport investment needs and conflicting demands of the general exchequer, investment in urban transport in the past has not kept pace with the rapidly increasing requirements of the sector (National Transport Development Policy Committee, 2014). Such a scenario is neither desirable nor sustainable and needs to be proactively rectified on an urgent basis.

On the whole, it has been widely recognised today that the implementation record of various urban transport functions has remained curtailed due to a general lack of planning skills among different agencies involved in the urban transport system. Thus, there exists a need for an agency or a mechanism to facilitate the holistic planning of urban transport systems. This necessitates the

case for setting up a Unified Metropolitan Transport Authority (UMTA), which would be an umbrella body that facilitates integrated management and coordinated planning of the urban transport system. UMTA would, thereby, herald effectiveness in urban transport planning in an integrated and sustainable manner.

NUTP 2006 recognises that the structure of governance for the transport sector does not provide the right mechanisms to deal with urban transport problems. It, therefore, recommends setting up of a Unified Metropolitan Transport Authority (henceforth called UMTA/ the Authority) in all million plus cities to facilitate more co-ordinated planning and implementation of urban transport programmes and projects. In order to facilitate the integration of land-use and urban transport planning and to ensure that UMTA meets its goals, NUTP envisages reassignment of existing functions among various agencies. According to the recommendations of the Working Group on Urban Transport in the 12th Five Year Plan, UMTA is envisaged to be an executive body governed by a Governing Board (henceforth referred to as Governing Board/ Board). The Board shall comprise heads of various departments in the city, local elected leaders and eminent citizens, and shall carry out various functions. These relate to policy formulation, regulation, undertaking integrated and holistic planning for transport services and associated infrastructure, coordination across different organisations and agencies and management of common facilities, etc. The following section demonstrates some of the potential advantages of UMTA in Indian cities.

1.3 BENEFITS OF UMTA

1.3.1 Facilitates integrated planning and management of urban transport

Coordinated transport and land-use plans, infrastructure investment and urban services involve various departments and agencies at different levels. Functions like land acquisition and route planning are currently performed by agencies at centre, state and city levels. The concerned departments and agencies often have varying missions, objectives, budgets, management styles, governance structures and staff profiles. Therefore, co-ordination often becomes the obvious casualty and the seamless integration of transport systems becomes difficult. UMTA will render this coordination by including in its purview all planning and implementation functions pertaining to urban transport programmes and projects. The responsibilities of all agencies involved in urban transport are envisaged to be aligned to UMTA. Thus, creation of UMTA is expected to streamline the functions of the plethora of agencies involved in urban transport.

UMTA is envisaged to be a single unified agency that directs planning, operations and monitoring of various transport modes in an area. This would ensure that decisions about transport systems include future planning of urban development. These decisions will have spill-over effect on other development agenda with a key objective of urban mobility to be planned in a holistic and integrated manner. The various measures of integration that UMTA is expected to provide are demonstrated in Exhibit 2 below.

Exhibit 2 Measures of integration to be provided by UMTA

Integration	Description
Physical Integration	The land-use plan and transport plan should enable TOD to identify and spatially connect key demand generators of transport, thereby, providing improved connectivity to residences, offices and retail outlets.
Network Integration	Different networks should work complementarily to provide smooth and seamless connectivity. For example, bus routes should be designed in such a way that they feed into and support the mass transit systems. An essential part of network integration involves scheduling of services so that intra-modal and inter-modal services connect efficiently and effectively.
Fare Integration	A unified travel card for multiple transit services will facilitate convenient transfer between available modes. Cities such as Hong Kong, Singapore and London have demonstrated that a unified smart card system has underpinned the increase of public transport usage.
Information Integration	Information Technologies and Intelligent Transport Systems (ITS) can play important roles in integrated transport. For example, in Japan, all major railway stations have very clear signs, differentiating directions to the high speed rail network, the intercity train network and the suburban/local trains network. In addition, websites provide public transport users with information on the multi-modal transport options available and related details.
Geographical Integration	UMTA shall perform the function of connecting the city to peripheral towns and villages. It should undertake planning in the CMP by first defining the Urban Mobility Area, which may extend beyond the city. Thus, UMTA would ensure geographical integration by including the entire Urban Mobility Area in its jurisdiction and planning purview.
Institutional Integration	The Governing Board shall comprise representatives from all agencies and departments at the local, state and centre levels, performing any urban transport function for the particular city. UMTA will, thereby, create a platform for various planning, financing, monitoring and operational agencies to coordinate and integrate with one another, before performing their respective functions. This would ensure institutional integration and would prevent the agencies from operating in silos.

1.3.2 Facilitates multi-modal integration of transport services

The transport system in a city comprises several components such as land-use plans and development/master plans, road network and its associated infrastructure, parking facilities, the different modes of public transport systems and their associated infrastructure, private vehicles, the regulatory system, traffic management and enforcement system, etc. It is important that all these components work harmoniously, especially considering the inter-dependency factor which exists among them. UMTA is envisaged to be given complete control in the approval of all transport initiatives in its jurisdiction. Transport project approvals would be granted on the

condition of their compliance with the Comprehensive Mobility Plan (CMP). All investments would reach the implementing agencies only after UMTA approves those investments. UMTA would approve investments only if the envisaged projects comply with the CMP. This concentration of power will ensure that adequate attention is paid towards providing services for all modes of transport, as decided in the CMP. UMTA shall prevent public resources from being disproportionately channelized to the most commercially viable alternatives and move towards a more welfare-maximizing approach to allocate funds.

Besides, UMTA will facilitate transport integration, whereby all modes of transport will operate as one 'seamless' transport service which enhances the accessibility and mobility of the urban population. UMTA is expected to facilitate this integration among various transport modes by introducing integrated ticketing and integrated passenger information system.

1.3.3 Facilitates rational fare structures

NUTP proposes that a regulatory authority should regulate charges for different types of public transport services, to ensure that fares that are charged are fair and reasonable. Current central and state laws actively work against this concept. Therefore, such laws would need to be changed for this to be achieved.

Fare structures have a significant influence on the demand for urban transport services. Adjustment of fares can increase the favourability and competitiveness of public transport services in relation to private transport modes. However, lowering the fare charged for public transport services may need to be supported by subsidies in order to prevent service providers from incurring losses. UMTA is envisaged to assign a dedicated source of revenue to enable provision of subsidies. UMTA is expected to set up regulatory/ institutional mechanisms to periodically revise fares of all public and intermediate public transport systems

1.3.4 Facilitates research, studies and awareness

Research and development are other crucial functions which play an indispensable role in ensuring optimum utilisation and channelling of investment. In order to make informed decisions, data and information relating to the urban transport system should be made available to the agencies and the public. This includes travel patterns, segmented for different categories of city residents and modes of transport, and information on sustainable modes of transport. Such information proves useful in tailoring fare structures, specific to peak and off-peak periods, and enables service providers to practise price discrimination. Moreover, these research initiatives can enable maximisation of revenue, subject to meeting welfare objectives.

State and city authorities are in general ill-equipped in terms of trained staff to deal with the sheer increase in traffic volume or adopt advances in technology that would help them overcome urban transport problems. UMTA is expected to facilitate the application of guidance and consultancy services to urban transport problems in an integrated manner, and address the problems through research, studies, awareness campaigns and promotion of good practices in urban transport.

1.4 PURPOSE OF THE OPERATIONS DOCUMENT

MoUD has realised the importance of urban transport and the role of UMTA in the overall development of the sector. MoUD is encouraging State Governments to set up an UMTA in each of the million plus cities to ensure coordinated planning and implementation of transport initiatives. However, there remains ambiguity among the city and state governments regarding the precise form and role that UMTA should undertake, which is hindering and delaying the establishment process. Some cities have requested MoUD to provide guidelines and procedures for establishment of UMTA, so as to help them gain a better understanding.

In this context, MoUD intends to assist Lucknow in setting up UMTA and UTF by development of operations documents to act as handbooks for establishment and operationalization processes of UMTA.

1.5 APPLICATION OF THE OPERATIONS DOCUMENT

The decision making processes of an UMTA would be city specific. While challenges of urban transport would be largely common across cities, each city has its own uniqueness and context that will require specific measures. Large metropolitan areas in India encompass a number of municipalities. Alternate models for UMTA may be needed for cities with different sizes and characteristics. This operations document has been developed to serve as a guidance document for setting up UMTA specifically for Lucknow Urban Mobility Area (as shall defined in the UMTA Act). It is to be adopted by policymakers/officials at the city/regional/state levels for establishment and operationalization of Lucknow UMTA.

The objective of the operations document is to provide operational guidelines and procedures that comply with the provisions of the UMTA Act and the rules framed under it. The document spells out the processes that Lucknow may follow to set up and operationalize UMTA. Although broad guidelines have been provided, this document does not include technical and comprehensive details about how UMTA should carry out each function. The user is advised to refer to toolkits developed by MoUD for specific functions¹ to be carried out by UMTA.

This document may be updated periodically to incorporate developments that may occur over time and be upgraded based on experience gained during the setting up of UMTA.

1.6 LAYOUT OF THE OPERATIONS DOCUMENT

This document is divided into two major parts: **pre-operationalisation** and **operationalisation** of UMTA.

The pre-operationalisation part highlights guidelines about the key activities to be undertaken to finalise the UMTA structure and the UMTA Bill. The operationalisation part offers guidelines for commissioning activities which are required to be undertaken to set up the Governing Board, including the selection of a CEO of UMTA and a Secretariat. This part also outlines the steps required to operationalise various functions envisaged under UMTA.

¹ Please refer to Toolkit for Alternative Analysis by MoUD
Please refer to CMP Revised Toolkit 2014

Chapter 1 provides an introduction to this document including how the concept of UMTA has evolved and discusses the benefits of UMTA and the purpose, applicability and layout of this document.

Chapter 2 describes the key rationale for setting up UMTA in Lucknow. It highlights the various laws and agencies involved in providing urban transport and related services in Lucknow. It also catalogues the distribution of various functions concerning urban transport among such agencies. Besides, this chapter conducts a detailed analysis of the legal and structural scenario which identifies persistent problems within Lucknow's urban transport system.

Chapter 3 highlights guidelines which need to be followed to identify a Nodal Agency that initiates the process of establishing UMTA and UTF for Lucknow Urban Mobility Area. The key role of the Nodal Agency will be to act as an overall facilitator for setting up UMTA and UTF, and an established Task Force which undertakes pre-operationalization activities. The role and responsibilities of the Nodal Agency and Task Force have also been provided in this chapter.

Chapter 4 provides guidelines for finalisation of the structure of UMTA, including geographical coverage, Governing Board structure, institutional arrangements, organisational structure and functions.

Chapter 5 describes guidelines for activities to be carried out by the Task Force during enactment of the UMTA legislation.

Chapter 6 deals with aspects relating to operationalisation of UMTA. This covers guidelines for engagement of consultant for handholding support, appointment of CEO of UMTA, setting up of Governing Board, organisational chart, delegation of powers, etc.

Chapter 7 deals with operationalisation of functions. This chapter provides guidelines for carrying out UMTA's functions including development of policies, standards and guidelines, Transport Investment Programme, Alternative Analysis, integrated facilities, regulation and conducting research, studies and awareness activities.

Chapter 8 describes the broad procedures and guidelines to be followed to carry out day-to-day administrative and human resource processes.

PART I - PRE-OPERATIONALISATION ACTIVITIES FOR SETTING UP UMTA

2. NEED FOR UMTA IN LUCKNOW

This chapter describes the key rationale for setting up UMTA in Lucknow. It highlights the various laws applicable and agencies involved in providing urban transport and related services in the city of Lucknow and the distribution of various urban transport functions among such agencies. A detailed analysis of the legal and structural scenario leads us to identify the problems which currently persist within the ambit of urban transport in Lucknow. The rationale and benefits for setting up UMTA in Lucknow are discussed in the following sections.

2.1 OVERVIEW OF EXISTING LEGAL & INSTITUTIONAL ARRANGEMENTS

The Constitution of India provides the framework for laws in India. In doing so, it makes provisions for different lists under which governments at different levels (national, state and city) can enact laws. However, urban transport is not an exclusive subject under any of the three lists given in the Constitution. In the city of Lucknow, like in any other Indian city, there exists a plethora of laws and corresponding agencies at various levels, which collectively govern the urban transport system. However, there is no legislation that covers the needs of urban transport comprehensively. In such a scenario, the multiplicity of laws and authorities involved in urban transport functioning often gives rise to conflicting agendas of authorities, and a lack of understanding and coordination on various issues related to urban transport. Overlapping laws also create conflicts related to their interpretation, and often leave certain functions ambiguously defined, leading to functional gaps and lacunae in service provision. This existing fragmentation of responsibilities and powers is hindering the development of a robust, integrated and sustainable urban transport system in Lucknow.

Currently, several agencies at the city level of Lucknow (refer Exhibit 3) are involved in the management of various components of urban transport. These include Lucknow Nagar Nigam (LNN), Lucknow Development Authority (LDA), Lucknow Metro Rail Corporation (LMRC), Town and Country Planning Department, etc. It has been observed that there is limited coordination among these agencies in dealing with urban transport matters in a holistic manner. For example, the Traffic Police, Uttar Pradesh State Road Transport Corporation, Indian Railways, LNN, LDA, Finance Department, each tends to prepare its plans individually, in isolation, with limited coordination with other agencies. There is no effective planning and coordinating agency or a common platform where individual plans of each of the agencies can be integrated, keeping the overall goal of improving urban mobility in focus.

Exhibit 3 Role of existing institutions affecting urban transport in Lucknow

Agency	Centre/State/Local	Functions
National Highways Authority of India	Centre	Planning, designing, development, operation and maintenance of National Highways
Public Works Department	Centre	Construction, maintenance and repairs of buildings and roads of all civil work departments
Lucknow Development Authority (LDA)	Local	Land-use planning and regulating the growth of the city
Lucknow Nagar Nigam (LNN)	Local	Management of smaller roads and traffic lights, licensing and control of non-motorized vehicles, clearing of encroachments, provision of water, sewerage and drainage services
Lucknow Metro Rail Corporation (LMRC)	Local	Development and operation of metro rail
Lucknow City Transport Service Limited (LCTSL)	Local	Operation of city bus services
Uttar Pradesh State Road Transport Corporation (UPSRTC)	State	Operation of bus services in the state

2.1.1 Urban transport in Lucknow is governed by approximately 20 laws at the central and state level

As discussed above, there are various laws at the central and state level that directly influence the functioning of urban transport in Lucknow. The existence of multiple laws leads to the constitution of distinct and different frameworks for various aspects of urban transport. Some aspects of urban transport are directly governed by laws enacted by the Union Parliament and some by laws enacted by Uttar Pradesh State Legislature. Exhibit 4 provides a list of various legislations applicable in the city of Lucknow, which have a bearing on the urban transport sector.

Exhibit 4 Legislations pertaining to Urban Transport applicable in the city of Lucknow

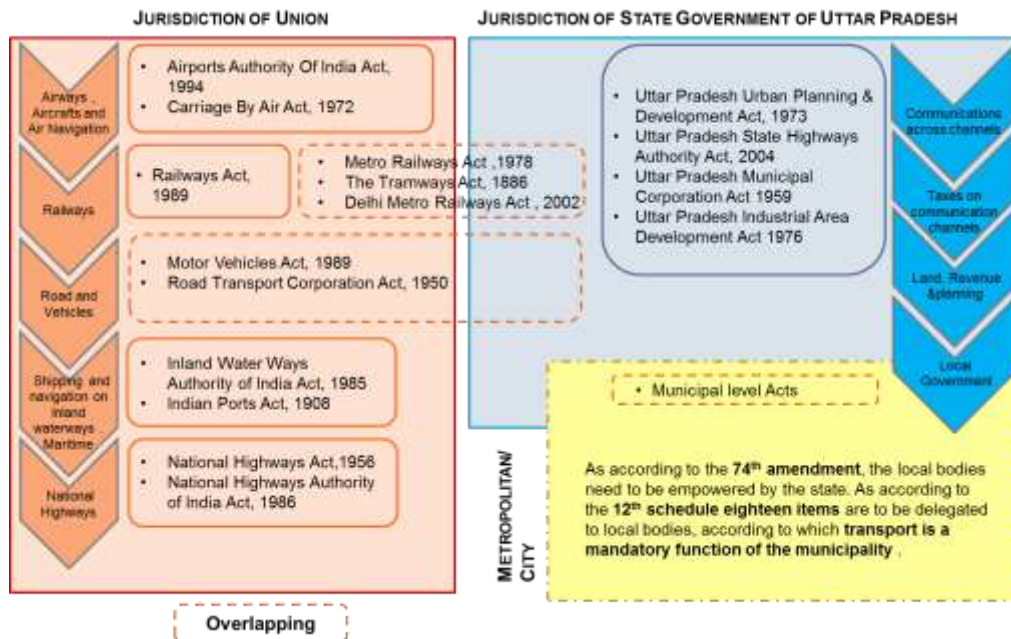
Legislations pertaining to urban transport applicable in the city of Lucknow			
Sr. No	List of State Acts	Sr. No	List of Central Acts
1.	Uttar Pradesh Urban Planning & Development Act, 1973	1.	Indian Railways Act, 1989
2.	Uttar Pradesh State Highways Authority Act, 2004	2.	National Highways Authority of India Act, 1988
3.	Uttar Pradesh Municipal Corporation Act, 1959	3.	The control of National Highways (Land and Traffic) Act, 2002
4.	Uttar Pradesh Housing and Development Board Act, 1965	4.	The National Highways (Collections of fees by Any person for the use of section of National Highways/ Permanent Bridge/Temporary Bridge on National Highways) Rules, 1987
5.	Uttar Pradesh Expressway (Levy of Tolls and fixing of Fees and realisation thereof) rules, 2010	5.	Central Motor Vehicles Act, 1988
6.	Uttar Pradesh Industrial Area Development Act, 1976	6.	The Central Road Fund Act, 2000
7.	Uttar Pradesh Value Added Tax Act, 2008	7.	The Central Road Fund (State Roads) Rules, 2007
		8.	The Road Transport Corporation Act, 1950
		9.	Carriage by Road Act, 2007
		10.	The Inland Waterways Authority Of India Act, 1985

2.1.2 No single law to cover urban transport comprehensively

As demonstrated above, there is no single law that comprehensively covers the requirements of urban transport sector. Urban transport is not a unified subject matter in the framework established for legislative competence under the Constitution. For legislative purposes, some components of urban transport come under the jurisdiction of the Central Government, other components come under the jurisdiction of the State Government, while few others may be

legislated by either Central or State Government. This overlap of the key laws governing urban transport is presented in Exhibit 5 below.

Exhibit 5 Overlapping of the key laws governing urban transport in the city of Lucknow



2.1.3 Multiple laws lead to creation of multiple agencies

The plethora of laws governing urban transport in Lucknow has led to the emergence of multiple authorities with jurisdiction over various aspects of urban transport. These agencies play varied roles and have different agenda which may be conflicting at times. Further, the fragmented distribution of power to control urban transport activities creates a structural overlap, which can be disabling, as it does not allow for unified planning or implementation. The following is a list of agencies that operate in the urban transport domain and have arisen out of the various laws described above:

1. Lucknow Development Authority
2. Lucknow Nagar Nigam
3. Uttar Pradesh State Road Transport Corporation
4. Lucknow Metro Rail Corporation
5. Transport Department
6. Traffic Police
7. Uttar Pradesh Housing and Development Board
8. Town & Country Planning Department, Uttar Pradesh
9. Indian Railways (North)
10. Public Works Department
11. Lucknow City Transport Service Limited

12. Uttar Pradesh Pollution Control Board

13. National Highways Authority of India

It is evident that there exist multiple agencies which are playing an important role towards facilitation of planning, implementation, operation and management of urban transport schemes in the city of Lucknow. Further, to enforce and regulate transport related situations, these agencies introduce various legislations which could be parallel or conflicting in nature, thus resulting in the current fragmented nature of operation and governance. Following are some of the problems that arise from such a complex institutional structure:

1. Limited coordination among agencies

Each agency performs its own urban transport initiatives and there is either no or very little coordination with other agencies. Greater coordination across the three levels of governance as well as within each level would lead to better execution of urban transport functions. Thus, there exists a need for an agency or a mechanism to facilitate integrated planning of development of urban transport systems through better institutional coordination.

2. Conflicting agendas

Since multiple agencies emanate from multiple legislations related to urban transport, the agendas of certain agencies may be inconsistent with the agendas of others in the absence of an unambiguously defined legal framework. The various laws governing municipalities, urban local bodies and development authorities also govern other aspects such as transport, roads, and planned development of an area that lies within the jurisdiction of the state. Therefore, there is a potential conflict and overlap among various agencies such as municipalities and development authorities over urban transport issues.

3. Limited accountability

Accountability is reduced when responsibilities are ambiguously defined and agendas are overlapping. Certain agencies may overlook performing certain responsibilities which are not clearly allocated or there is an overlapping of functions across agencies. In such instances, there is limited functional understanding among the agencies, which may reduce their accountability towards those functions. This may compromise on the provision of integrated urban transport services to the public.

4. Isolated functioning

Agencies at the central level such as NHAI, Indian Railways, Airports Authority of India, PWD, etc. as well as agencies at the city level such as LDA and LNN are involved in framing of guidelines and standards, operation and building of public transport infrastructure, approval of projects, etc. These functions are carried out by these agencies in isolation. This may be a hindrance to an integrated urban transport system and coordinated planning.

Exhibit 6 below presents a mapping of urban transport infrastructure to the respective agencies responsible for its provision in Lucknow. It demonstrates that the responsibility of providing infrastructure for non-motorised vehicles and integrated services remains unassigned at present.

Exhibit 6 Mapping urban transport functions to different agencies

Regulatory Functions	<ul style="list-style-type: none"> • Department of Transport (The Motor Vehicles Department) , • Uttar Pradesh Pollution Control Board • City Traffic Police - Lucknow • Finance Department • Urban Development Department
Strategic Policy Making	<ul style="list-style-type: none"> • Finance Department • Department of Transport (The Motor Vehicles Department) • Planning Department
Road Infrastructure	<ul style="list-style-type: none"> • Motor Vehicles Department • Uttar Pradesh State Road Transport Corporation • Airports Authority of India • Lucknow Metro Rail Corporation
Sub-urban rail Infrastructure	<ul style="list-style-type: none"> • Indian Railways
Bus Infrastructure	<ul style="list-style-type: none"> • , Uttar Pradesh State Road Transport Corporation
Bus Services	<ul style="list-style-type: none"> • Lucknow City Transport Service Limited
Metro/Mono/Light Rail	<ul style="list-style-type: none"> • Lucknow Metro Rail Corporation

2.2 OVERLAPPING OF FUNCTIONS ACROSS AGENCIES

The structure of distributed jurisdiction for different aspects of urban transport between city and state level agencies as well as among the various Central Government ministries and departments, has led to an overlapping of functions among various agencies. The distribution of responsibilities among multiple agencies results in a repetition of certain tasks and omissions of other essential tasks. The following are some examples of overlapping functions that are being performed by multiple agencies in Lucknow:

1. Planning

In Lucknow, planning activities related to the transport sector fall under various laws like Uttar Pradesh Municipal Corporation Act 1959, Uttar Pradesh Urban Planning and Development Act 1973 and Uttar Pradesh Housing and Development Board Act 1965. Further, Lucknow Nagar Nigam under the Uttar Pradesh Municipal Corporation Act, 1959 has been entrusted with the

function of urban planning, including town planning. This overlaps with the function of the Town and Country Planning Department. Route planning for buses is done by the agency operating the bus services i.e. Uttar Pradesh State Road Transport Corporation. However, there is no systematic exercise to design an integrated network of public transport routes and services within Lucknow.

2. Policy Formulation

The Constitution of India and various urban reform initiatives advocate a parking policy and advertisement policy which are to be devolved at the local level of government. However, within parking policy there is considerable overlap. Different agencies plying different modes of transport dictate parking policy within their own jurisdictions. In Lucknow, fee, toll, taxes, cess and parking charges come under the ambit of the Uttar Pradesh Municipal Corporation Act, 1959, Uttar Pradesh Motor Vehicle Rules and The Indian Tolls (Uttar Pradesh Amendment) Act, 1974.

Tariff policy is decided by agencies at the central and state levels. Central level agencies such as NHAI, Indian Railways and Airports Authority of India are entitled to decide their tariff policy autonomously. There is limited coordination in price-setting, among various agencies at the central and state levels, as well as with those agencies that levy parking charges.

Various authorities and agencies are involved in issuing permits for various tasks. For example, vehicle registration and license issuance are done by State/Regional Transport Authority. However, permits and approvals for construction of transport infrastructure like road, bus depots, parking lots, etc. are issued by several agencies such as Lucknow Development Authority, Lucknow Nagar Nigam, Uttar Pradesh State Highways Authority, NHAI, etc.

3. Project Implementation

There is lack of coordination among agencies related to land development. LDA is the primary agency responsible for city road infrastructure. The other agencies involved in construction and maintenance of the city roads are LNN, PWD, NHAI, etc.

Agencies such as LDA, LNN, PWD, Uttar Pradesh Housing and Development Board, etc. are responsible for construction and maintenance of roads, flyovers and other infrastructure projects within the city of Lucknow. Intercity roads/ highways are constructed and maintained by Uttar Pradesh State Highways Authority and National Highways Authority of India.

Parking infrastructure is not an exclusive subject assigned to any one authority or agency but to various authorities according to their territorial jurisdiction like LDA, LNN, AAI, Traffic Police, etc.

2.3 GAPS IN FUNCTIONS AMONG AGENCIES

A structural gap exists in the urban transport sector, since various modes of mass rapid transit and aspects of transport planning, multi-modal integration, tariff and financing are not covered under any particular act. The term 'gap' refers to an urban transport function which is not included or comprehensively covered under any of the existing act as its primary function. There are some important functions that have been effectively excluded from the responsibilities of various agencies involved in urban transport of Lucknow at present. Some of these functions have been highlighted below:

1. There is no agency specifically handling integrated services such as common ticketing, multi-modal passenger information and multi-modal terminals. This kind of institutional gap translates to commuter dissatisfaction since travel time and cost increase substantially.
2. Fare structures are set by agencies without taking into account the price structures of other modes of transport. This results in a gap with respect to modal fare fixing since the same makes it difficult to influence modal choice of users. Even within a particular mode of transport, fare structures vary widely.
3. Regulation of bus services is done by LNN, but it tends to merely agree with the routes applied for by the operators. Mostly, only those routes that are commercially viable are served and others are neglected.
4. City and state level authorities are generally found to be ill-equipped to deal with problems related to urban transport management such as increase in traffic, change in technology or operation techniques. Also as agencies grow over a period of time, there is learning and adoption of new best practices which need to be incorporated by other agencies across the national, state and city levels. This capacity building network is missing at the state and city levels.
5. No agency has the responsibility to develop and promote technology based solutions for traffic management, transport planning and designing of transport systems.
6. No agency currently has the responsibility of advancing the skills of persons employed by an authority, provision of facilities of training, education and research, or the efficiency of the equipment of the authority or the manner in which the equipment is operated.

Thus, certain aspects of urban transport such as integrated land-use and urban transport planning, multi-modal integration of passenger services, tariff setting and financing are not adequately covered in any of the existing central or state acts. Overlapping in the working of different agencies, lack of proper coordination and lack of dissemination of relevant data and information amongst different authorities/agencies are serious hindrances in the prevailing urban transport system of Lucknow. There is a need for a comprehensive Urban Transport Act to incorporate plans of Central Government agencies like NHAI, Indian Railways, etc. with the plans of Government of Uttar Pradesh and city level authorities, to ensure better coordination of available transport systems and services. In the absence of such legal amendments, urban transport will continue to be the secondary responsibility of several agencies as their scope will continue to remain restricted. In this scenario, efforts have been made to coordinate with multiple agencies involved, but this is a difficult task when each has its own legislative backing and mandate.

2.4 RATIONALISATION OF FUNCTIONS - AUTHORITY ↔ ACCOUNTABILITY

Authority and accountability are closely related and should go hand in hand. It is imperative to delegate authority to an agency which can be held accountable for the implementation of its functions. In order to bring about integrated management and development of urban transport

facilities and systems, there is a need for rationalisation of functions and ownership rights of agencies.

Some instances where authority and accountability diverge across agencies in Lucknow have been exemplified below:

- Currently, Lucknow City Transport Service Limited (LCTSL) is responsible for ensuring smooth operation of city buses in Lucknow. However, LCTSL does not have the requisite authority required for this responsibility. It is the State Transport Department which issues licenses and route permits to various vehicles. It may be the case that the department issues licenses to buses as well as intermediate transport like autos and minibuses on the same route, causing the latter vehicles to undercut fares of buses, to increase their revenue. Such a scenario causes hindrance to the smooth operation of city buses for which LCTSL may be held responsible. It is clear that in such a situation, the department is responsible for disrupting operations of city buses on that particular route.
- LMRC is responsible for metro rail transportation. If LMRC decides to add a metro corridor in a particular area, the authority to approve the same lies with LDA, which might approve the same after various consultations.

Therefore, there is a strong case for establishing an authority which assumes responsibility for carrying out clearly defined and distinguished urban transport functions in Lucknow.

2.5 STATE-LEVEL UMTA

Considering the above mentioned needs of a unified transport authority, the Government of Uttar Pradesh has established a state-level UMTA, which is chaired by the Chief Secretary of Uttar Pradesh. A dedicated transport fund has also been set up at the state level, known as the Uttar Pradesh Dedicated Urban Transport Fund. The key functions assigned to this authority include urban transport policy and fare structure formulation and establishing institutional coordination among various agencies involved in the provision of urban transport.

2.6 CONCLUSION: RATIONALE FOR SETTING UP UMTA IN LUCKNOW

A single coordinating agency, such as UMTA, can be better placed to manage the existing institutional gaps and institutional overlaps amongst various agencies in urban transport at the city level. Based on a thorough review of the existing institutional framework for transport planning and governance in Lucknow, following are three key reasons that emerge as the rationale for setting up UMTA:

1. **Bridging the institutional gap** - Under existing institutional arrangements, there are gaps in functions which are not assigned to any agency. These functions include common ticketing, integration of land-use plan with transportation plan, multi-modal integration, developing and implementation of technology based solutions, etc. These functions can be considered for UMTA.
2. **Addressing institutional overlap** - Multiple laws have been passed that have given rise to multiple agencies. Thus, the power to control urban transport activities leads to structural overlap which is disabling and does not allow for unified planning or implementation. Currently,

overlaps related to policy formulation, project approval and regulatory functions have been observed. UMTA would streamline the functioning of various agencies by eliminating functional overlap.

3. **Accountability** - There are certain functions, which are successfully performed by existing agencies but can be rationalised and given to UMTA so that as an authorizing agency, UMTA also remains accountable. Rationalisation of functions will ensure integration and coordination of urban transport projects within Lucknow.

3. IDENTIFICATION OF NODAL AGENCY AND ESTABLISHMENT OF TASK FORCE

3.1 INTRODUCTION

This chapter highlights the guidelines for identifying a Nodal Agency and initiating the process of establishing UMTA and UTF for Lucknow. The key role of the Nodal Agency will be to act as an overall facilitator for setting up of UMTA and UTF and establishing a Task Force for undertaking pre-operationalisation activities. These activities will include formulating guidelines about the tasks to be undertaken by UMTA, finalizing the structure of UMTA and drafting the UMTA Bill. The chapter also details the role and responsibilities of the Nodal Agency and Task Force.

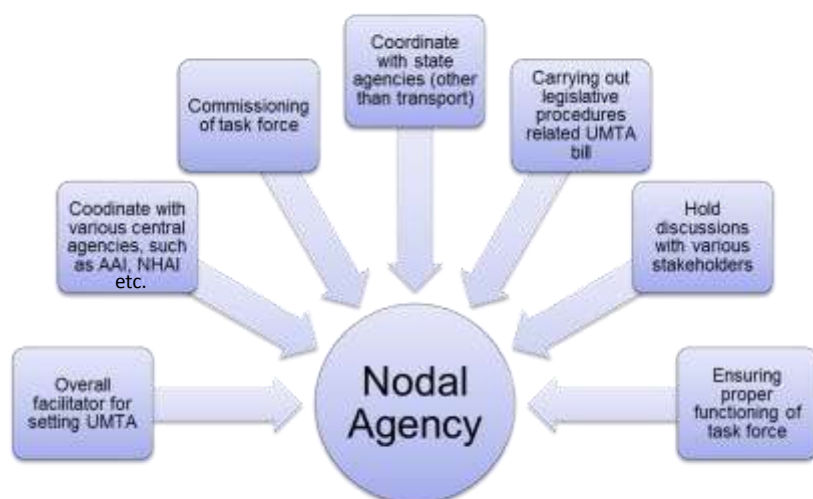
3.2 FUNCTIONS OF NODAL AGENCY

The Nodal Agency would act as a nodal point of contact for the agencies involved in Lucknow's urban transport system.

The proposed functions of the Nodal Agency have been shown in Exhibit 7 and are described below:

- The Nodal Agency's primary function shall be to facilitate the process of setting up of UMTA in Lucknow. In other words, this agency should act as the administrative department which implements the establishment process of UMTA. It should provide a common platform for bringing together different implementing agencies² across city, state and central level departments to form UMTA. The Nodal Agency should define procedures for the establishment of UMTA and ensure that they are followed, without hampering the everyday working of various agencies involved.
- The Nodal Agency shall set up a task force responsible for undertaking pre-operationalization tasks of UMTA. Pre-operationalization activities involve preparing guidelines for core tasks³ to be performed by UMTA, drafting the UMTA Bill for

Exhibit 7 Functions of the Nodal Agency



² Implementing agencies are those which execute urban transport plans and undertake implementation activities.

³ Core and additional tasks have been recommended in section 4.6.2

Lucknow, deciding the structure of UMTA, etc. The Task Force should comprise representatives and experts from various fields and levels of governance and it would be the responsibility of the Nodal Agency to bring together such representatives.

- There are several agencies at the state level other than the key agencies that are involved in planning and implementation of projects. The Nodal Agency will facilitate coordination among them.
- The Nodal Agency shall provide administrative assistance to the Task Force in carrying out various legislative procedures that precede the establishment of UMTA through an Act.
- The Nodal Agency should regularly assess the activities performed by the Task Force and ensure their timeliness.
- The Nodal Agency is also responsible for holding discussions and seminars with the stakeholders to update them about the progress and solicit suggestions regarding implementation.
- The Nodal Agency shall also be responsible for preparing the rules and regulations of UMTA, once the Bill is passed.

3.3 IDENTIFICATION OF THE NODAL AGENCY

A pre-requisite to setup UMTA in Lucknow Urban Mobility Area is to make a particular agency responsible for managing the establishment process of UMTA. The agency shall act as a nodal point of contact between the multiple agencies involved in Lucknow's urban transport and can be termed as the Nodal Agency.

The Nodal Agency is envisaged to have urban transport representatives from Lucknow Nagar Nigam, Lucknow Development Authority, Uttar Pradesh State Road Transport Corporation, Lucknow Metro Rail Limited, Uttar Pradesh State Bridge Corporation Ltd., along with representatives from the ministries of the Central Government (MoUD, MoRTH, Indian Railways, NHAI, etc.). However, because urban transport is a state subject and the formation of UMTA requires statutory backing by enacting of special laws and legislations, and drafting operational procedures, it is advisable to appoint a state level agency as the Nodal Agency. The Urban Development Department, Government of Uttar Pradesh, is proposed to act as the Nodal Agency for setting up UMTA for Lucknow.

3.4 ESTABLISHMENT OF TASK FORCE

For UMTA to be a coordinating agency, there is a need to constitute a Task Force, which will be responsible for carrying out the pre-operationalisation activities for UMTA and UTF.

In the process of setting up UMTA, the Task Force is meant to be an independent body, not influenced by any particular stakeholder of the urban transport sector. The Task Force is also expected to be dedicated only towards the establishment of UMTA and UTF.

3.4.1 Functions and powers of Task Force

The Task Force shall have the sole objective of managing the establishment of UMTA and UTF. Once constituted by the Nodal Agency, the Task Force shall be responsible for providing it with handholding support in carrying out pre-operationalisation activities in establishing UMTA and UTF. The key responsibilities of the Task Force have been described below.

Finalisation of UMTA structure

- The Task Force would be required to finalise the UMTA structure in terms of its geographical coverage, institutional arrangement, composition of Governing Board, specification of functions, organisational structure, etc. Various options of possible structures that the Authority could adopt have been proposed in subsequent chapters. The Task Force will decide and finalize on the structure after a thorough review of the existing urban transport system in Lucknow.

Stakeholder consultations

- The Task Force would be expected to organise stakeholder consultations for finalisation of the draft UMTA Bill. The stakeholders shall include all agencies at the city, state and central levels, which are involved in any aspect of urban transport. These may include public and private sector institutions, transport associations, chambers of commerce, non-governmental organisations and citizen representatives. The Task Force will be required to facilitate consultations for soliciting inputs and opinions of all stakeholders, before finalising UMTA's structure, functions, powers, etc.

Assistance in enactment of UMTA Bill

- The Task Force shall be required to undertake all activities on behalf of the Nodal Agency in passing the legislation for enactment of the Bill by Government of Uttar Pradesh. It shall act as an interface among various agencies involved in urban transport and the State Government, in finalising the UMTA Bill. In this regard, it is expected to work alongside the state's legal department and provide it with all necessary support.

Assistance in organizing initial Board meetings

- The Task Force shall assist in the preparation of invitation letters and notices to Governing Board members for participation in UMTA's meetings. It shall also assist in organising initial meetings of UMTA, with a view to identifying and finalising its vision, mission and goals. The Task Force shall identify any further courses of action required for operationalising UMTA.

Other than the key functions highlighted above, the Task Force shall, at all times, coordinate with the Nodal Agency and other agencies (central, state and local government agencies) involved in UMTA. It shall provide all the required support to the Nodal Agency on matters related to setting up of UMTA. Further, the Task Force should make itself fully aware about the transport situation in Lucknow and be equipped with all information for finalisation of UMTA and UTF structure, including all the administrative processes of setting up of the Authority.

3.4.2 Composition of Task Force

The Task Force is envisaged to decide and finalise the blue-print of UMTA and UTF. Therefore, it is important that it be composed of officials who have functional expertise in the areas under the purview of UMTA, and at the same time, have domain expertise in the urban transport sector. In light of the various functions that have been proposed to be performed by UMTA in the UMTA Bill (refer Annexure I), it is recommended that the Task Force should have representatives from the following departments at the local, state and national levels.

- Uttar Pradesh Housing and Development Board
- Transport Department, Uttar Pradesh
- Uttar Pradesh State Road Transport Corporation
- Lucknow City Transport Service Limited
- Lucknow Metro Rail Corporation
- Lucknow Nagar Nigam
- Lucknow Development Authority
- Public Works Department, Uttar Pradesh
- Finance Department, Uttar Pradesh
- Town and Country Planning Department, Uttar Pradesh
- Indian Railways
- National Highways Authority of India

Representatives from these departments would ensure domain expertise. However, for the Task Force to finalise the functions and operations of the Authority, it is crucial that the body should comprise individuals who have functional expertise in transport planning, public transport management and finance. Therefore, the Nodal Agency should also be given the authority to nominate other members of the Task Force who have professional experience and expertise in the field of transport planning.

3.5 CONCLUSION

This chapter discussed the identification and setting up of the Nodal Agency which shall bring together a Task Force responsible for the initiation of UMTA. The next chapter discusses some of the major options confronting the Task Force regarding UMTA, such as geographical coverage, structure of the Governing Board, its functions, institutional arrangements and organisational structure.

4. FINALISATION OF UMTA FUNCTIONS AND STRUCTURE

4.1 INTRODUCTION

This chapter provides guidelines to be used for finalisation of the UMTA structure in Lucknow. As mentioned in the previous chapter, the Task Force shall be responsible to present the finalised form of the UMTA Bill to the Government of Uttar Pradesh for its enactment.

This chapter includes guidelines for the following aspects of UMTA's structure:

- Geographical coverage;
- Governing Board structure;
- Functions;
- Institutional arrangements; and
- Organisational structure.

4.2 GEOGRAPHICAL COVERAGE

Lucknow is the capital city of the state of Uttar Pradesh. Lucknow Urban Agglomeration (LUA) includes Lucknow Nagar Nigam and Lucknow Cantonment. The total population of Lucknow as per 2011 Census was 28,17,105 and is projected to be 45,89,826 by the year 2031, which includes migration and floating population components.

While the Government of Uttar Pradesh may decide and define the jurisdiction of Lucknow UMTA, it is recommended that the geographical coverage for UMTA should include the planning area considered in preparation of the land-use plan/master plan for the city. This is necessary to facilitate integration between the land-use plan and CMP that is envisaged to be prepared by UMTA. Further, UMTA's jurisdiction is recommended to extend beyond the planning area. This will enable UMTA to achieve the important objective of promoting development of systems for seamless public transport access beyond the urban area.

It is imperative that the jurisdictional coverage of Lucknow UMTA is clearly defined in the UMTA Bill. This jurisdiction would be referred to as Lucknow Urban Mobility Area. This defined territory may extend beyond the city, as the city may experience sprawling population. Therefore, the clause defining the Urban Mobility Area should be flexible to incorporate revision, as and when the jurisdiction of the master plan gets extended.

4.3 GOVERNING BOARD STRUCTURE

Lucknow UMTA is envisaged to be a full time professional body with representation from all city and state level transport agencies and associated stakeholders. The Task Force which has been set up to initiate UMTA and UTF, is expected to nominate a Governing Board for the Authority. Once approved by Uttar Pradesh state legislation, this Board will form the core decision-making

management of UMTA and is expected to execute all functions that the Authority has been assigned.

The composition of the Governing Board of UMTA will have a major impact on streamlining its functions and in coordinating with various stakeholders in the urban transport sector. It should be kept in mind that the composition of the Governing Board of Lucknow UMTA should include representatives from all city, state and central level government agencies involved in urban transport. The Board should also be well represented by beneficiary groups such as citizen forums, civil society, etc., as all these members are stakeholders in urban transport matters and decisions. The idea of stakeholder representation on the Governing Board is to allow for interest groups to be directly involved in making decisions regarding planning, coordination, oversight and management of all transport related matters.

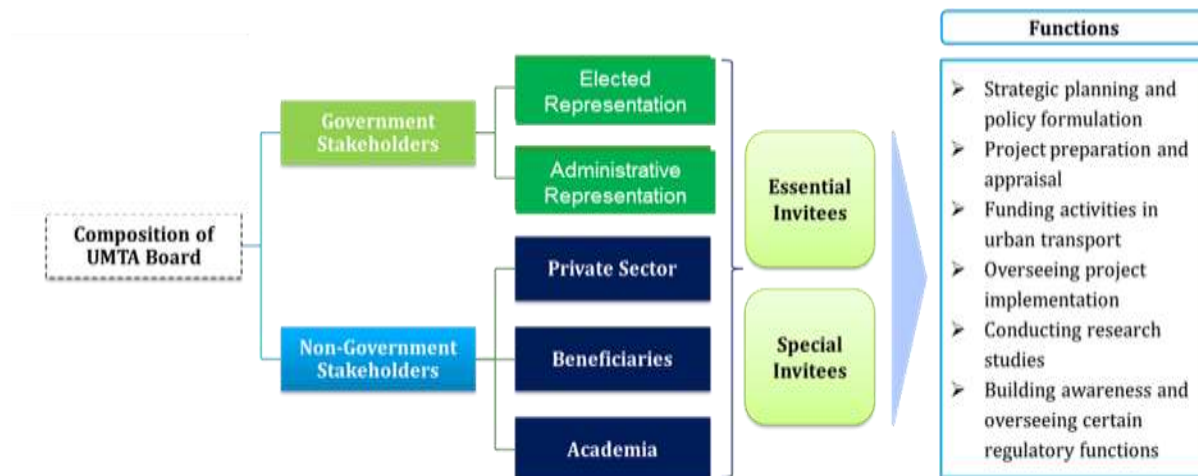
The Governing Board of UMTA shall essentially perform the following functions:

- To monitor and oversee proceedings of the Task Force in setting up UMTA;
- To be accountable to the Government of Uttar Pradesh in matters of urban transport;
- To undertake the overall responsibility of UMTA's functioning;
- To undertake strategic decisions regarding UMTA's functions related to CMP preparation, project prioritization, Alternative Analysis, Transport Investment Programme;
- To set timely targets for UMTA and conduct progress reviews to assess performance;
- To provide a forum where stakeholders can have discussions on the decisions of the Authority.

4.3.1 Composition of Governing Board

The Governing Board of Lucknow UMTA is proposed to have adequate representation from all the relevant stakeholders, i.e. those agencies, institutes or individuals that are involved in any aspect of urban transport of the city. In this context, the Governing Board should comprise both government and non-government representatives. These may include members from the administrative services as well as elected representatives. Among the non-government stakeholders, representation should be drawn from the private sector, various beneficiary groups as well as academic institutions to assist in undertaking research and development activities. The composition and functions of the Governing Board are illustrated in Exhibit 8, while exhibit 9 provides the suggestive composition of Lucknow UMTA.

Exhibit 8 Composition and functions of the Governing Board of UMTA



Roles of Chairperson, Members, Essential Invitees and Special Invitees

1. **Chairperson:** The chairperson shall be, de jure head of UMTA. The Divisional Commissioner is proposed to be the Chairperson of Lucknow UMTA.
2. **Members:** These shall comprise officers from various departments from Government of Uttar Pradesh as well as local bodies within and around Lucknow Urban Mobility Area. Various departmental heads and senior level officers are proposed as members. UMTA members shall undertake all decisions relevant to the functioning of UMTA by exercising their right to vote. Each member, who shall be a departmental representative, shall exercise his/her vote on behalf of the department. All decisions of UMTA shall be taken by consensus, and in case no consensus is reached, the decisions would be taken by majority⁴.
3. **Special Invitees:** Officers from national level departments such as Indian Railways, Airports Authority of India, NHAI, etc. may be invited to be a part of the Governing Board, upon the request of the chairperson, as and when deemed necessary for specific meetings. That is to say, they may be invited only when the subject matter and agenda of the meeting holds potential concern and interest to their respective departments. Special invitees are not to have voting rights; however, reasons for their dissent, if any, shall be recorded.
4. **Essential Invitees:** This category includes all other pertinent urban transport stakeholders who have not been included in the previous categories. These include experts from various realms relating to urban transport including finance, law, public transport, citizen representatives and organised beneficiary groups; and technical and research institutes undertaking transport research. A fixed proportion or all of these persons may be mandatorily invited to all UMTA meetings. These persons should be consulted so as to make the decision

⁴ The majority voting system of undertaking decisions by the Board may be simple, absolute or mixed, as decided by the Governing Board. The Board may choose to follow a mix of simple and absolute voting whereby it shall undertake important functional decisions of UMTA pertinent to CMP, Transport Investment Programme, etc. by an absolute majority voting, and the rest of the decisions by simple voting. The voting structure may be prescribed in the rules framed under the UMTA Act.

making process inclusive, transparent and technically sound. Essential invitees are not to have voting rights; however, the expert advice tendered by them shall be recorded.

Exhibit 9 Suggested composition of Lucknow UMTA

DESIGNATION	Chairperson/Vice-Chairperson/Member/Special Invitee/Essential Invitee
Representatives from Government of Uttar Pradesh	
Divisional Commissioner, Lucknow Mandal	Chairperson
Lucknow Regional Transport Officer, Transport Department, Government of Uttar Pradesh	Member
Officer, Finance Department, Government of Uttar Pradesh	Member
Vice-Chairman, Lucknow Development Authority	Member
Municipal Commissioner, Lucknow Nagar Nigam	Member
Deputy Director (Traffic), Uttar Pradesh State Police, Lucknow	Member
Senior Traffic Planner, Traffic Transportation & Appraisal Unit, Town and Country Planning Department, Government of Uttar Pradesh	Member
Managing Director, Lucknow City Transport Services Limited	Member
Managing Director, Lucknow Metro Rail Corporation	Member
Officer, Public Works Department, Uttar Pradesh	Member
Member Secretary, Uttar Pradesh Pollution Control Board	Special Invitee
Representative, Lucknow Cantonment Board	Special Invitee
Representatives from Central Government	
General Manager, Northern Region, Indian Railways	Special Invitee
Officer, National Highways Authority of India (as nominated)	Special Invitee
Officer, Ministry of Urban Development (as nominated)	Special Invitee
Officer, Airports Authority of India (as nominated)	Special Invitee
Non- Government representatives	
Corporate Governance, Law and Finance Experts	Essential Invitee
Urban Transportation Expert (as nominated)	Essential Invitee
Urban Transport Institutions' Representative	Essential Invitee
Public Transport Beneficiaries Representative	Essential Invitee

It is proposed that representation from Divisional Railway Users' Consultative Committee (DRUCC) and Zonal Railway Users' Consultative Committee (ZRUCC), or any committees of the Central Government agencies, be included in the Governing Board of UMTA, which could be done through the representation from the agency itself, such as the Indian Railways. Also, the Chairperson of UMTA's Governing Board would nominate one of the members from UMTA to be included in the meetings of any committee created by the Central Government agencies such as the Indian Railways (ZRUCC, DRUCC), NHAI, etc. This would ensure that decisions of the central

level agencies, having a bearing on the transport system in the Urban Mobility Area, are taken after incorporating UMTA's suggestions.

4.4 ORGANISATIONAL STRUCTURE

The organisational structure for an authority reflects the division of responsibilities among its units that work in coordination to accomplish its overall objectives. Generally, while designing the organisational structure for an authority, specific individual units that handle one or more of the distinct responsibilities of that authority are identified. Additionally, some support units should be identified that enable the other units to carry out their functions. These units may be referred to by different terminologies such as cells, divisions, wings, departments, etc.

During consultations with various agencies involved in urban transport in Lucknow, it emerged that the following broad functions should be assigned to Lucknow UMTA:

- Transport planning
- Transport management
- Funding selected urban transport activities
- Regulation
- Conducting policy, research studies and awareness

Individual units may need to be put in place to carry out each of these equally crucial and distinct functions. An important consideration while identifying individual units is the synergy among them. For example, the research and studies function is dissimilar from the policy making function. However, a single unit may be envisaged for these functions, which brings in synergy and results in efficient operations. In case any of these functions are not included as functions of UMTA, suitable modifications may be considered.

A suggested approach to ensure efficient operations is to keep the authority lean and suitably outsource some activities to specialized entities. A lean organizational structure will lead to identification of selected positions with specific responsibilities. This will also depend on the size of the Urban Mobility Area which comes under UMTA's purview and other local factors. In this regard, options for functions that may be outsourced could include UTF management, accounting, information technology, ITS and communications, etc. Consultants could be engaged for activities such as preparation of CMP, development of procedures and guidelines, review of proposals and audit of implementation, preparation of contracts, preparation and delivery of awareness campaigns and conducting research.

Because of the high level of responsibility, UMTA will need to attract and retain highly experienced, capable and professional staff for effective and efficient discharge of its functions. In order to meet this objective, it is suggested that UMTA should opt for a mix of deputed and permanent staff. Hence, Lucknow UMTA shall request each Governing Board representative (as mentioned above) to depute or nominate its staff for UMTA. This would facilitate quick staffing, as the deputed staff will have high level of familiarity with the procedures and processes of the Authority.

Simultaneously, Lucknow UMTA shall recruit employees from the open market for permanent positions. This option would ensure that fresh and precise talent is acquired to work in UMTA on a full-time basis. A case study on the organisational structure of LAMATA is presented in Exhibit 10.

Exhibit 10 Case Study- organisational structure of LAMATAs

Organizational structure of LAMATA (Lagos Metropolitan Area Transport Authority)

To meet its objectives and goals, LAMATA needed qualified and experienced staff in departments such as traffic management, for which there was a limited supply of suitably qualified professionals in Nigeria. LAMATA has, therefore, taken innovative steps in recruiting its staff by widening the net beyond Nigeria so as to engage staff with the necessary experience. Sometimes, recruitment has also been undertaken via agencies avoiding situations whereby pressure is placed on LAMATA to employ favoured candidates.

The remuneration and retention packages of LAMATA staff are pitched at private sector levels so as to attract, retain and motivate high calibre staff that can enable LAMATA to meet the challenges of transforming transportation in Lagos.

The organization has also prepared and is implementing several policies designed to assure effective operations. These include an employee handbook, a financial management system manual, a procurement procedures manual, IT policy, staff training needs assessment and plan, and LAMATA policies and procedures manual. In addition, LAMATA has undertaken rigorous staff training needs assessment, identifying the types of training needed by the staff to support them in their functions. Frequently, staff is engaged in study tours within and outside Nigeria to expose them to solutions to issues and problems that can be applied in Lagos.

4.5 INSTITUTIONAL ARRANGEMENT

The institutional arrangements for an authority reflect where the authority should be placed i.e. where it will legally and administratively report. For example, Lucknow UMTA may report to Lucknow Nagar Nigam, Lucknow Development Authority or any other local agency, or to a department of Government of Uttar Pradesh.

For selecting a suitable institutional mechanism for UMTA, the following guidelines have been kept in view:

- a) UMTA should be a statutory autonomous body with full technical and financial authority and responsibility for delivery, and should be made accountable.
- b) The institutional framework of UMTA should infuse decision-making autonomy.
- c) It should provide a robust model for transport service delivery through independent and accountable governance of the urban transport sector.

It has been proposed, on the basis of stakeholder consultations, that Lucknow UMTA should be accountable to the Urban Development Department, Government of Uttar Pradesh. This department will also acts as the Nodal Agency and therefore, be in a favorable position to guide UMTA, having already been acquainted with the formation and pre-operationalization process of UMTA. Besides, it would be more appropriate for a state level department to be UMTA's parent department, since it would comprise both state and local government members. Such an

institutional arrangement would ensure that the status of UMTA is at par with that of other ULBs such as LDA and LNN.

4.6 FUNCTIONS OF UMTA

The functions assigned to UMTA will dictate aspects of its design. Hence, attention needs to be given when deciding the functions that will be performed by Lucknow UMTA. The finalization of functions that Lucknow UMTA is assigned, is the generated outcome of analysis of the functional gaps, functional overlaps, and the overall situation of urban transport in Lucknow, in terms of planning, coordination and integration of different modes, etc.

The functions of Lucknow UMTA can be broadly categorised into the following groups: policy making, planning for infrastructure and services, regulatory functions, overseeing operation of public transport modes and supervision of construction and maintenance of infrastructure. Among these functions, strategic policy making is a prerogative of the Central Government and Government of Uttar Pradesh. NUTP is an example of such a policy, drawn at the Centre, which incentivises both the state and cities to improve and develop their transport systems, by providing the requisite direction and resources. Apart from this, Lucknow UMTA is expected to undertake planning and regulatory functions, to ensure that a well-coordinated urban transport system exists within Lucknow Urban Mobility Area. Since UMTA would mostly be a planning and regulatory body, it is not expected to undertake functions related to public transport operation and construction and maintenance of infrastructure, which may continue to be performed by implementing agencies. The key considerations and guidelines that may be referred to, when finalising UMTA's functions are highlighted below.

Exhibit 11 discusses UMTA counterparts around the world and the functions they perform.

Exhibit 11 Case Study- UMTA counterparts across the world and their functions

Examples of Unified Transport Agencies across the world

Various cities across the globe offer examples of their governments' organisational arrangement to manage urban transport:

Key Considerations

- ✓ Is UMTA filling institutional and governance gaps currently curtailing development of the urban transport sector?
- ✓ Is UMTA able to resolve the existing legal and institutional overlaps, leading to unambiguous urban transport planning and operation?
- ✓ Does there exist clear assignment of responsibilities and powers among urban transport agencies?
- ✓ Are the urban transport functions rationalised and logically assigned?
- ✓ Has UMTA been given the right balance of authority and accountability?

1. **STIF (Transport Syndicate of the Ile de France)** is a unified transport authority accountable for transportation of the whole region of Paris across all modes of ground transport. STIF is in charge of organizing, coordinating, modernizing and financing public transport. It also formulates the urban mobility plan; defines the transportation routes; selects and appoints operators; sets the operational, management and financing guidelines; and ensures that the investment programmes have certain coherence.
2. **Transport for London (TfL)** is an integrated transport authority accountable for London's transport system. TfL is responsible for planning and operation of transport facilities in the city which clocks more than 24 million commuters every day. TfL controls several modes of transportation such as London Underground, Dockland Light Railway, London Overground Train services, Croydon Tramlink, London River services, London Transport Museum and London Road Network. TfL manages a total of 580 km of road network in London and 6000 traffic lights installed in the UK capital. It is also responsible for administering the taxi and private hire trade.
3. **TransLink Vancouver** is the regional transportation authority of Metro Vancouver. It is responsible for regional transit, cycling, commuting options and installation of Intelligent Transportation Systems. TransLink, along with the municipalities in Metro Vancouver, is also involved in the Major Road Network (MRN). It is the first North American transportation authority to be responsible for the planning, financing and management of all public transportation systems. The services that come under TransLink are bus, ferry, commuter rail, skytrain, roads and bridges, among others.
4. The **Land Transport Authority of Singapore (LTA)** is the authority responsible for land transport development and regulation in Singapore. It is accountable for both public and private transportation. LTA was one of the first integrated transport authorities to be formed in the world, adopting the approach of a one-stop agency for all land transport functions.

The following table demonstrates the broad functions under the domain of unified urban transport agencies in various countries:

Country	Strategic Functions	Infrastructure Planning	Regulation	Service Planning	Infrastructure & Construction Maintenance	Public Transport Operations	
						Common Facilities	Independent Services
Paris	✓	X	✓	✓	X	X	X
London	✓	✓	✓	✓	X	✓	X
Vancouver	✓	✓	✓	✓	X	✓	X
Singapore	✓	✓	✓	✓	X	✓	X

4.6.1 Finalisation of UMTA's functions

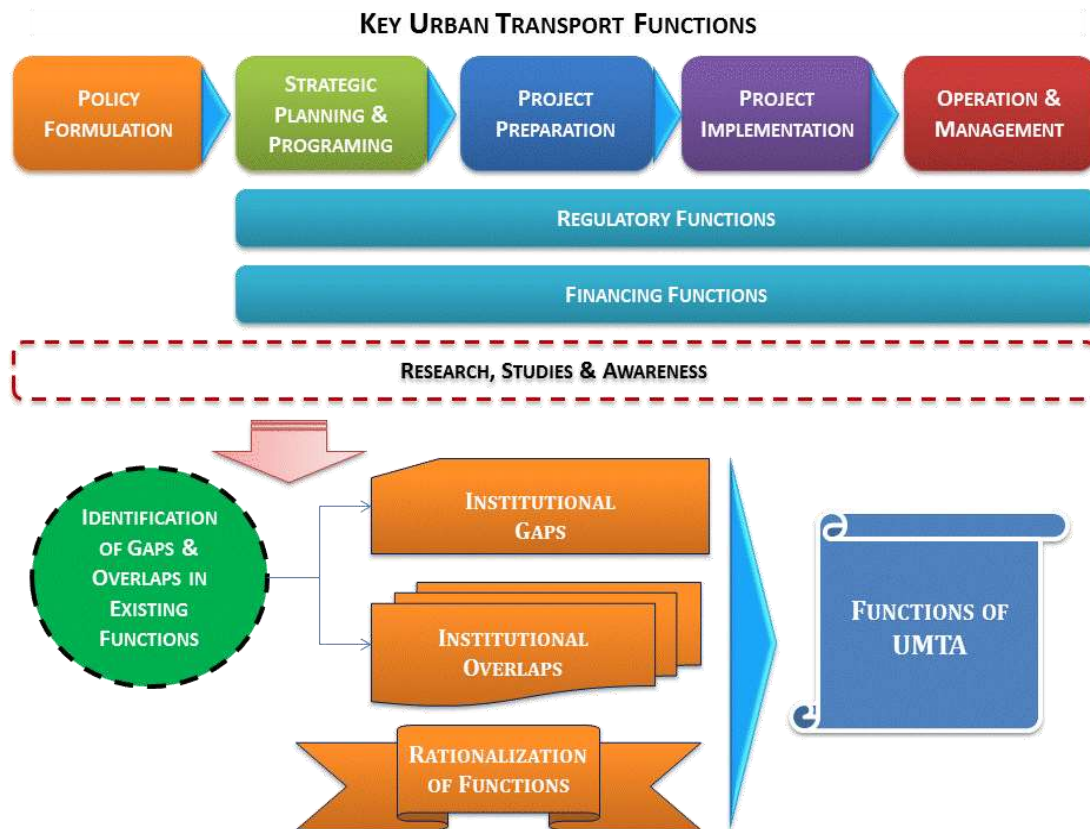
For UMTA to be an effective organisation and to ensure that it plays a constructive role in integrated planning, coordination, development and provision of urban transport in Lucknow, its roles and responsibilities need to be clearly defined.

The urban transport functions and related activities for managing and funding the urban transport system of Lucknow can be divided into eight broad categories, as described below:

i. Inputs into policy formulation

UMTA should provide inputs to the Gol and Government of Uttar Pradesh in developing strategies for removing bottlenecks and modernising Lucknow’s transport system. UMTA, being a local-level government body, will have in-depth and precise knowledge about urban transport challenges that exist at the ground level. These may range from infrastructure inadequacies to institutional and governance bottlenecks. UMTA would be in an appropriate position to advise the Government of Uttar Pradesh on the city’s current and future urban transport needs and the mechanisms for addressing the challenges.

Exhibit 12 Guidelines for urban transport functions to be performed by UMTA



ii. Strategic planning

Urban planning functions are assigned to various agencies including Lucknow Development Authority and Town and Country Planning Department, Uttar Pradesh. However, the scope of most of these agencies is limited to land-use planning. In Lucknow, the land-use plan prepared by Lucknow Development Authority contains a transport component, which includes aspects related to transport infrastructure provision. However, there is no planning undertaken for urban transport operations. Preparation of a CMP, which includes planning for mass rapid transit, para-transit and non-motorised transport, as well as the road and highway network and associated facilities is of equal importance, from the perspective of transport. Further, the responsibility to prepare a consolidated multi-year urban transport programme to ensure that urban transport initiatives are integrated and scheduled in a logical sequence, is not assigned to any specific agency in Lucknow. It is in this context, UMTA should undertake planning functions that set the

direction for Lucknow's long-term transport planning, providing a framework for transport policy and investment decisions to respond to key challenges.

iii. Project prioritization and approval

To ensure that all modes of transport are adequately provided for, UMTA should be assigned the function and power to approve funding for all urban transport initiatives in Lucknow Urban Mobility Area. Approval of urban transport initiatives is a power assigned to UMTA to give it the necessary authority to execute its functions. This is crucial since UMTA is being assigned responsibilities and in order to ensure that other agencies comply with UMTA's decisions, it needs to be given teeth. If UMTA is not given this power, it may not be able to ensure compliance of agencies with CMP.

It should be made mandatory for proposals by implementing agencies to obtain no-objection clearance and consents from UMTA. The Authority should expedite this by issuing 'Certificates of Approvals' for projects drawn by implementing agencies which are in consonance with CMP. This would ensure compliance with strategies, plans, programmes, standards and guidelines. It is particularly important that UMTA reviews and approves projects for which it facilitates funding in whole or in part, so that it can be assured of gaining value from putting in its resources. Project approvals will be based on compliance with CMP and other guidelines and standards prepared by higher authorities.

iv. Ensuring project implementation

Project implementation functions include construction as well as upkeep and maintenance of urban transport infrastructure, including roads and associated facilities such as road furniture, traffic signals, road intersections, flyovers, grade separators, bridges, bypasses and facilities for pedestrians, bicycles, terminals for inter-modal transfers and parking, etc. Construction and maintenance of road infrastructure is generally the responsibility of agencies such as National Highways Authority of India, Public Works Department and Lucknow Nagar Nigam for national, state and local roads. The present arrangement for implementation of projects for individual modes of transport, including coordination with utility agencies, should continue because current responsibilities are clear and there are competent implementing agencies.

It would not be appropriate to make UMTA directly responsible for implementation of projects unless they relate to integration of transport modes or operations across jurisdictions, for which no single agency is currently responsible. UMTA could, however, be assigned the function of ensuring project implementation to ensure overall integration and compliance with CMP.

v. Overseeing operation and management

Operation, maintenance and management of transport infrastructure and facilities and operation of public transport services are generally carried out, either by public or private companies or agencies. Operation and management requires technical staff and equipment and is recommended to be left to infrastructure and facility owners and service providers. In this regard, UMTA should be made responsible for overseeing/regulating the operation of integrated facilities and systems for public transport in Lucknow Urban Mobility Area.

vi. Regulation

Regulatory functions with respect to urban transport include registration and licensing of public, private and freight transport vehicles, fare fixation, issuance of permits, designation of public transport routes and service levels, inspection of vehicles, enforcement of traffic laws and management of traffic. These functions are generally carried out by a number of departments within Government of Uttar Pradesh. There are benefits to be realised from rationalising some of these functions and enabling Lucknow UMTA to issue recommendations on performance of such functions, thereby giving UMTA some degree of responsibility for matters that occur solely within its area of jurisdiction.

On the other hand, matters like registration and licensing of private and commercial vehicles, which apply to Uttar Pradesh as a whole, would not be a suitable function for UMTA. The same argument applies to licensing and fare fixation for public transport vehicles that operate outside the purview of UMTA's jurisdiction. UMTA should, however, be allowed to provide recommendations on licensing and fare fixation of public transport vehicles operating within its jurisdiction, and regulate fees and charges for urban transport facilities and services. It is suggested that UMTA should not get involved in inspecting vehicles or enforcing traffic laws or managing traffic.

vii. Funding

The funds requirements of the urban transport sector are huge. Urban transport reforms recommend establishment of an Urban Transport Fund (UTF) so that transport initiatives are less dependent on government budgetary allocations. As part of these reforms, it is envisaged that UMTA planning should regulate expenditure from the UTF for urban transport initiatives in Lucknow Urban Mobility Area and ideally, UMTA should be responsible for managing utilisations from UTF. In this regard, UMTA should be made responsible to manage the UTF. The funding role that should be assigned to UMTA may include:

- Resource mobilisation
- Treasury management
- Utilisation / disbursements of funds
- Fund management
- Monitoring of fund utilisation

viii. Research studies and awareness

For development of Lucknow's urban transport, research studies need to be conducted regularly. This function may be assigned to UMTA. This would involve conducting research specific to Lucknow Urban Mobility Area and studies for upgrade and extension of urban transport and effective measures to enhance public safety in urban transport.

The methodology and detailed guidelines for carrying out each of the above mentioned functions has been discussed in Chapter 7 "Operationalisation of functions". The Urban Transport Fund operations document provides guidelines on various aspects related to setting up and operationalisation of such UTF for Lucknow to carry out all functions relating to funding.

Lucknow UMTA would also perform any other function as delegated by the state-level UMTA.

4.6.2 Options for implementation of UMTA’s functions

MoUD has observed that generally cities and State Governments are not sure of the form and role of an UMTA for their urban areas and this is hindering the establishment process. Considering this fact, MoUD suggested that, an evolving approach is best followed in adopting possible functions of UMTA. These functions could be categorised into two types i.e. Core Functions and Additional Functions:

- The Core Functions include
 - Policy Formulation –UMTA shall assist and advise Government of Uttar Pradesh as well as local agencies within Lucknow in all matters related to urban transport. It shall prepare and administer urban transport policies and strategies. It should also set benchmarks and provide suitable guidelines to various agencies in executing transport policies.
 - Strategic Planning –UMTA is expected to prepare the multi-modal CMP and integrate it with the existing land-use plans of the city, by coordinating with appropriate agencies. Besides, the Authority is expected to monitor whether each agency is conforming to the laid out plans, and audit compliance.
- The Additional Functions comprise project prioritization and approval, and certain regulatory and funding functions envisaged for UMTA, which may be assigned when UMTA has made a strong footing in the institutional setup of Lucknow.

In this regard, Lucknow UMTA may exercise any of the following options:

Under **Option I – Integrated planning and coordination only (core functions)**, UMTA should be made responsible for integrated planning, consolidation of MYPs of activities and other aspects of coordination.

In **Option II – Rationale group of functions (additional functions)**, UMTA should be made responsible for a rational set of functions. This option should involve transferring some functions from agencies currently carrying them out.

In Option III – All urban transport functions mentioned above should be assigned to UMTA.

The option so adopted, may involve significant changes to current agencies and result in a much larger UMTA organisation and consequently, an even larger range of skills required. The extent of each of the options is illustrated in Exhibit 13:

Exhibit 13 Options for UMTA’s Functions

FUNCTION	Option I	Option II	Option III
POLICY FORMULATION			
Assist and advise all levels of government on urban transport matters	Yes	Yes	Yes

FUNCTION	Option I	Option II	Option III
Prepare and administer urban transport policies, strategies, standards and guidelines	Yes	Yes	Yes
STRATEGIC PLANNING			
Prepare a CMP integrated, integrated with land-use plan	Yes	Yes	Yes
Prepare an Alternative Analysis Report	Yes	Yes	Yes
Prepare a detailed Transport Investment Programme for urban transport	Yes	Yes	Yes
Monitor and audit compliance with the above plans	Yes	Yes	Yes
PROJECT PREPARATION AND APPROVAL			
Approve urban transport projects and activities		Yes	Yes
ENSURING PROJECT IMPLEMENTATION			
Ensure the development of integrated facilities and systems for urban transport		Yes	Yes
OVERSEE OPERATION AND MANAGEMENT			
Oversee operation of integrated facilities and systems for urban transport		Yes	Yes
REGULATION			
Issue standards and guidelines for urban transport		Yes	Yes
Recommend on issuance of license/ permits for public transport services	Yes	Yes	Yes
Monitor and advise on fees and charges		Yes	Yes
Enforce regulations for which UTA is responsible		Yes	Yes
FUNDING			
Fund public transport services for integrated mobility		Yes	Yes
Fund, or arrange / recommend / approve funding for urban transport projects		Yes	Yes
Monitor and audit use of UTF		Yes	Yes
RESEARCH STUDIES AND AWARENESS			
Maintain records relating to urban transport		Yes	Yes
Develop and manage local performance indicators for urban transport		Yes	Yes
Monitor and advise on safety relating to public transport		Yes	Yes
Conduct research studies, education and awareness programmes		Yes	Yes
OTHER			
Build and maintain major infrastructure (stations, interchanges, roads etc.)			Yes
Operate buses, trains and other forms of public transport			Yes
License and register vehicles and drivers			
Inspect vehicles' construction and condition			
Enforce traffic laws and manage traffic			

Functions that need to be rationalized

The Governing Board may choose to assign additional functions to Lucknow UMTA or it may choose to assign only core functions initially and gradually take up additional functions. It has emerged during the stakeholder consultation that Lucknow UMTA should opt for option II, where a rationalised group of functions are assigned to it. Since such an exercise is unique, the Authority may start off by not overtaking building and maintenance functions, as it may enter into dispute with agencies already performing such functions, thereby risking and delaying the process of UMTA taking off. Therefore, the Task Force should be careful in the initial assessment and assignment of functions to UMTA and should try to minimise the possibility of dispute with other agencies.

4.7 CONCLUSION

This chapter discussed the finalisation of the structure for Lucknow UMTA, which is an important activity that the Task Force is required to perform. The next chapter describes the guidelines for activities to be carried out by the Task Force during enactment of the UMTA legislation.

5. PROCESS FOR ENACTMENT OF BILL

5.1 INTRODUCTION

This chapter describes various activities to be carried out for finalization and enactment of the UMTA Bill for establishment of UMTA and UTF in Lucknow.

5.2 GUIDELINES FOR FINALIZATION OF DRAFT LEGISLATION

5.2.1 Finalization of draft UMTA legislation

The Task Force shall finalize the draft legislation that has been prepared for establishment of UMTA and UTF in Uttar Pradesh cities (refer Annexure I). This would involve finalization of the structure of UMTA and UTF, with regard to, inter-alia, the following aspects:

- i. Geographical coverage
- ii. Governing Board structure
- iii. Institutional arrangement
- iv. Functions and powers
- v. Funding sources and utilization

5.2.2 Consultation with the State's Legal Department

The Task Force shall, thereafter, refer the draft legislation to the State's legal department for:

- Scrutiny and legal vetting; and
- Any other update/suggestion to ensure feasibility and acceptance from legal and constitutional points of view.

5.3 PREPARATION OF NOTE FOR STATE GOVERNMENT'S CONSIDERATION

Once the state's legal department has been consulted and the draft legislation has been revised in accordance with these consultations, the Task Force shall develop a note and refer the same for approval of the State's Minister-in-charge of Urban Development.

The note for Government of Uttar Pradesh shall:

- (a) Bring out clearly the need, scope and objectives of the proposed legislation;
- (b) Present the views of the concerned stakeholders and the agreed finalised options that have been incorporated in the draft legislation; and
- (c) Provide a copy of the draft of the proposed legislation.

Where any modifications in the note or draft of proposed legislation are suggested by Minister-in-charge of Urban Development, Government of Uttar Pradesh Government, the Task Force shall incorporate the modifications in the note or draft legislation and may send a copy of the same to the various stakeholders and the state's legal department for approval.

An indicative format of the note has been provided in Annexure IV.

5.4 ACTIVITIES DURING ENACTMENT STAGE

5.4.1 Sending the note for approval of State Cabinet

Once the note has been approved by the concerned minister, the Task Force may proceed by sending the note to the state's Cabinet Secretariat for its consideration and approval. The cabinet may suggest some changes in the draft legislation. The Task Force in consultation with the state's legal department shall incorporate such changes in the legislation. Subsequently, the Task Force shall prepare the following documents:

- (a) A Statement of Objects and Reasons relating to the Legislation to be signed by the minister;
- (b) Notes on clauses to be appended to the Statement of Objects and Reasons;
- (c) Financial Memorandum to be prepared in consultation with the Department of Finance giving details of proposed sources of funds and their estimates; and
- (d) A Memorandum regarding the Delegated Legislation explaining the scope of the proposals and stating whether they are of a normal or exceptional character.

All the above documents should also be shown to the state's legal department before finalisation.

In this context, it should also be noted that in the light of approved Financial Memorandum, which will include sources of funding as provided under the draft legislation, there will be amendments which are required to be incorporated under various existing laws. Therefore, co-ordination and approval from other concerned ministries will also be required.

5.4.2 Sending legislation to Legislative Assembly

Once the proposed legislation has been finalized, the state's legal department shall send it for obtaining proof of copy.

The state's legal department will:

- a. Simultaneously send proof copies in English, Hindi and the local language version of the Legislation to the Secretariat of the state's Legislative Assembly; and
- b. Return the file to the Task Force.

The Legislative Assembly Secretariat shall receive the fair copy of the draft legislation printed at every stage and send a copy of the same simultaneously to the administrative department and to the legal department in order to ensure accuracy. The administrative department shall, after scrutiny of the Legislation, return it within a pre-defined period to the legislative department so as to enable the legislative department to incorporate corrections/suggestions, if any, and send the final scrutinised copy to the Legislative Assembly Secretariat.

The administrative department shall then send a notice of the motion for introduction of the Bill in their state assembly.

5.4.3 Introduction of the Legislation

On the date specified by the Department of Legislative Affairs, the legislation shall be put down

for introduction in the Vidhan Sabha and shall, thereafter, be published in the State Gazette by the Vidhan Sabha Secretariat. An indicative format of the same is provided in Annexure VI.

5.4.4 Motions after introduction

After the legislation is introduced, the minister may send to the Secretary-General, Vidhan Sabha, a notice of his intention to move:

- a. That it be taken into consideration and passed; or
- b. That it be referred to a Select Committee of the house; or
- c. That it be circulated for eliciting public opinion.

When the motion that:

- a. The Legislation be taken into consideration; or
- b. The Legislation, as reported by the Select Committee be taken into consideration, is carried;
- c. The Legislation will be taken up for clause-by-clause consideration. Members can, at that stage, move amendments to the Legislation.

5.4.5 Amendments

Copies of amendments that are notified by members shall be sent by the Vidhan Sabha Secretariat to various concerned departments. When they are received, the branch officer shall put them up with briefs for use of the minister for determining the attitude of Government of Uttar Pradesh to them.

5.4.6 Passing of Legislation

After consideration of the Legislation by the House, the minister-in-charge of the Legislation moves that the Legislation be passed. The motion shall be put to vote and adopted.

After the Legislation is passed:

- a. A copy of the Legislation, as passed, shall be sent by the Vidhan Sabha Secretariat to the state's legal department for scrutiny, with a view to correcting any errors and for making such other changes as are consequential to the amendments accepted by the Legislative Assembly; and
- b. On its return from the state's legal department, it will be reprinted by the Vidhan Sabha Secretariat with the superscript "as passed by the State of Uttar Pradesh".
- c. The date of assent which is the date on which the Legislation becomes an Act, shall be intimated to the administrative department and the Department of Legislative Affairs by the state's legal department.

5.4.7 Publication in the Official Gazette

The state's legal department shall:

- a. Publish the Act in the Gazette of India Extraordinary;
- b. Get copies of the Act printed in a suitable form for sale to the general public.

5.5 CONCLUSION

This chapter described the guidelines for activities to be carried out by the Task Force during enactment of the UMTA legislation. The next few chapters discuss guiding principles for the operationalisation of UMTA.

PART II - OPERATIONALISATION OF UMTA

6. OPERATIONALISATION OF UMTA

6.1 INTRODUCTION

Upon completion of the pre-operationalisation activities and issuance of Lucknow UMTA enactment from Uttar Pradesh State Legislative Assembly, UMTA's operationalisation activities shall commence.

This chapter outlines the process of operationalisation of Lucknow UMTA by the Task Force, with description of various aspects such as the engagement of consultants for handholding support, setting up of Governing Board, procedure for appointment of the CEO and other key professionals, structure of the organisation, functions of various divisions, delegation of powers, etc. Hence, various sub-sections have been explained sequentially for a clear understanding of the methods and procedures of UMTA's operationalisation.

The basic objective of this chapter is to provide guidance to the Urban Mobility Area for setting up a fully functional Lucknow UMTA.

6.2 ENGAGEMENT OF CONSULTANTS FOR HANDHOLDING SUPPORT

The first step towards operationalisation of UMTA shall include engaging consultants for providing handholding assistance in setting up a full-fledged UMTA.

In order to ease the process, Ministry of Urban Development (MoUD) has provided a list of empanelled consultants who shall be available for providing handholding support for setting up UMTA and UTF. This list has been provided in Annexure II. This is intended to save time as well as cost of the Task Force for procurement of consultants.

6.2.1 Carrying out the selection process

The Task Force, in consultation with the Nodal Agency, shall carry out the procurement process for selection of the consultant. The empanelled consultants may be considered for submission of proposals by the Task Force. The Task Force shall, however, be at liberty to directly invite technical and / or financial bids from the empanelled consultancy firms following prevailing procurement procedure in Uttar Pradesh. The list of empanelled consultants is available with MoUD and cities/states shall have the option to invite tenders from empanelled firms and accelerate the procurement process.

6.3 SETTING UP OF THE GOVERNING BOARD

The consultant appointed for providing handholding assistance shall assist the Task Force in setting up of the Governing Board of UMTA. The structure and composition of the Governing board have been discussed in Chapter 4. The consultant should assist in preparing invitation letters/ notices to mobilise the Governing Board members for carrying out initial meetings and preparing strategies for operationalisation of UMTA.

6.3.1 Organizing initial Board meetings

Once the Governing Board of UMTA comes into existence, the first step towards mobilisation shall be a Board meeting. The Task Force, with the help of the consultant, shall also be responsible for drafting and circulating a note on the details of the first UMTA meeting among each of the Governing Board members. The note shall consist of various specifications as provided below:

- Date and venue of the meeting
- Activities performed till date
- Way forward

The Task Force, with help of the consultant, shall circulate such a notice at least 7 days before the meeting.

The agenda of the initial Board meeting may include the following:

- A distinct vision/ mission and goal statement for UMTA
- Discussions on the detailed organisational structure of UMTA
- Discussions on appointment of CEO and Secretariat of the Authority
- Detailed discussions on the powers and functions delegated to the executive office members
- Plan of action to be taken up in order to achieve the vision for Lucknow Urban Mobility Area

6.4 APPOINTMENT OF CHIEF EXECUTIVE OFFICER

After mobilisation of the Governing Board, the CEO of the Authority shall be appointed by the Board in consultation with the Task Force. The consultant appointed for handholding support shall provide all required assistance to the Task Force and the Governing Board in selection and appointment of the CEO. The process and terms of appointment of the CEO, along with his role and responsibilities are highlighted below.

6.4.1 Appointment process and terms

The CEO would be the senior-most officer in-charge of the operations of the UMTA Secretariat. The CEO shall be appointed from the open market by Government of Uttar Pradesh/ UMTA Governing Board or on deputation basis. The official heading the Task Force may also be considered for appointed as the UMTA CEO at the discretion of the Government of Uttar Pradesh / UMTA Governing Board. The CEO shall be appointed in accordance with the procedures set out in Chapter 8. The team constituted for interview for the position of CEO shall include at least three members from the Governing Board. For the purposes of appointing a CEO, the Governing Board may also invite a suitably qualified specialist. The professional selected for the post of CEO shall be appointed on a full time/ deputation basis for a minimum period of three years, with reappointment options for a maximum of two consecutive terms. In case of reappointment, the CEO shall be informed two months prior to the end of his/her term.

6.4.2 Role and responsibilities of CEO

The CEO shall be responsible for all day-to-day activities of UMTA in accordance with the policies approved and delegations given by the Governing Board. The CEO shall initially be responsible for operationalisation of UMTA including recruitment of staff and setting up of various divisions with the help of the handholding consultant and under the guidance of the Governing Board.

Once UMTA gets operationalised, the CEO shall be responsible for the functions of the UMTA staff and presentation of periodic progress reports to the Governing Board. These progress reports shall be submitted in a format agreed upon by the Governing Board time to time.

The roles and responsibilities of the CEO of UMTA are recommended as below:

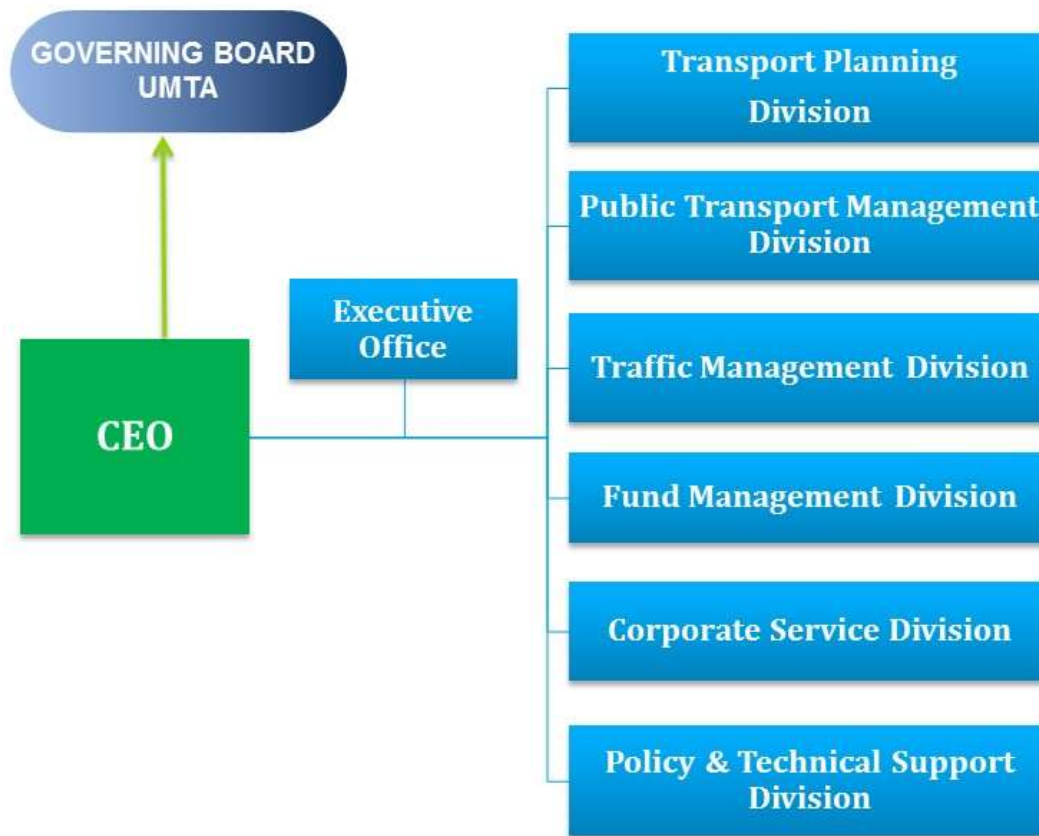
- Operationalisation of UMTA
- Carrying out and administering appointments of other key professionals and support staff as decided in the operations document or as deemed necessary
- Overseeing and monitoring the operationalisation process of UMTA
- Conducting and scheduling Board meetings
- Coordinating between the Governing Board and the Authority's staff for implementation of UMTA's functions
- Evaluating and analysing the progress of the Authority's functioning
- Advising and assisting the Governing Board members on various functions of UMTA
- All administrative and technical functions which the Authority may present before the CEO time to time.

A detailed profile of the CEO has been provided as a template in Annexure III.

6.5 DEVELOPMENT OF ORGANISATION

The Governing Board of Lucknow UMTA shall be assisted by a full-fledged organisation headed by the CEO. In order to perform various functions as envisaged under UMTA, six function-based divisions have been proposed. These divisions shall be responsible for discharging the functions assigned to them in coordination with other divisions. The roles and responsibilities of each of the divisions are highlighted in the following sections. Exhibit 14 depicts the organisational chart of UMTA.

Exhibit 14 Organisational chart of UMTA



6.5.1 Roles and responsibilities of divisions

- I. **Transport Planning Division:** One of the major functions of UMTA shall be to work with various stakeholders responsible for the provision of urban transport services and infrastructure and to prepare a CMP for Lucknow Urban Mobility Area.

The Transport Planning Division of UMTA shall have the following responsibilities:

- To comprehend a vision for a sustainable urban transport system for Lucknow Urban Mobility Area
- To formulate policies for a sustainable urban transport system within Lucknow Urban Mobility Area
- To prepare/ revise the CMP for Lucknow Urban Mobility Area
- To conduct Alternative Analysis on the basis of the proposed outcomes of CMP
- To regularly coordinate with the state's Urban Development Department/ Town and Country Planning Department and oversee the integration of CMP with land-use plan of Lucknow Urban Mobility Area
- To oversee preparation of MYPs for urban transport by various implementing agencies

- To coordinate with all relevant implementing agencies and monitor compliance with the CMP and Transport Investment Programme
 - To estimate and prioritise short, medium and long term plans
 - To coordinate with other divisions of UMTA for integrated and holistic development of the transport system within Lucknow Urban Mobility Area
 - To assist and advise Government of Uttar Pradesh on matters relating to urban transport, in consultation with the other divisions
 - To perform all such other functions as may be allocated by the CEO time to time
- II. **Public Transport Management Division:** The functions related to public transport such as operations, maintenance and management of transport infrastructure and facilities and operations of public transport services are carried out either by public or private agencies. The Public Transport Management division shall be responsible for integration of all modes of transport and overseeing operations of integrated facilities and systems. Regulatory functions assigned to UMTA shall also be performed by this division. Some of the key functions that may be assigned to this division include:
- Create plans for an integrated and sustainable public transport system for Lucknow Urban Mobility Area, with emphasis on non-motorised transport
 - Prepare strategies for integration of all modes of transport
 - Oversee operation of integrated facilities and systems for public transport
 - Develop standards and guidelines for public transport services specific to the requirement of Lucknow Urban Mobility Area in consonance with the land-use pattern
 - Coordinate with all relevant implementing agencies and supervise project implementation
 - Contract public transport
 - Provide recommendations on issuance of licenses for public transport services
 - Advise on monitoring and regulation of fee, charges, etc.
 - Propose innovative public transport solutions suitable to Lucknow Urban Mobility Area
 - Promote development of integrated multi-modal public transport systems for Lucknow Urban Mobility Area
 - Implementation of common ticketing system for public transport modes.
 - Perform all such other functions, as may be allocated by the CEO time to time

These functions shall be carried out by the Public Transport Management Division of UMTA in coordination with the Transport Planning Division. These two divisions shall, in coordination, plan for integrated facilities and systems to be developed.

- III. **Traffic Management Division:** The Traffic Management Division shall have five key missions to: improve highway safety, to improve the efficiency of roads, provide timely and

accurate real-time traffic information, facilitate cooperative public and private partnerships that integrate transportation services, and provide customer services directly to the public on the operation of the transportation system.

One of the most important functions of Lucknow UMTA shall be to coordinate with the various implementing agencies and create a seamless transport management system for Lucknow Urban Mobility Area. In order to achieve this objective, a centralised and integrated traffic control system is to be operated by the implementing agencies in coordination with the Authority. The Centralised Operation Control Cell may be responsible for the following activities:

- Planning and monitoring of a centralised signalling system for better management of traffic
- Provision of driver assistance and automation technology
- On-site assistance for incident management
- Setting up and operating a web-based user information system and helplines for the commuters
- Implementation of other ITS applications
- Parking management

IV. **Fund Management Division:** This division will manage all the financial matters including management of the UTF, preparation of financial plan, preparation of budgets and accounts, etc. This division shall also be responsible for monitoring the expenditures of the implementing agencies which have been granted funds from the UTF. The list of functions of this division, inter-alia, includes:

- Management of UTF
- Funding public transport services so as to provide seamless mobility and an integrated public transport system
- Funding / arranging / recommending / approving funding for urban transport infrastructure in whole or in part, in consultation with the Transport Planning Division
- Preparation of Transport Investment Programme
- Maintenance of all financial records and accounts of UMTA
- Preparation of annual reports, budgets and financial statements of UMTA
- Monitoring and audit of UTF's utilisation by implementing agencies
- Performing all such other functions as may be allocated by the CEO time to time

V. **Corporate Service Division:** This division shall be responsible for providing administrative and human resource support to all divisions of UMTA. Key functions of this division shall be to:

- Prepare human resource and administrative policies

- Perform all administration and human resource related functions
- Perform all information technology and communications related functions
- Prepare annual plans and reports
- Perform all such other functions as may be allocated by the CEO time to time

Policy and Technical Support Division: This division shall conduct capacity building programmes, in addition to research and field studies which facilitate the ability of all the other divisions and urban transport agencies within Lucknow Urban Mobility Area to take appropriate decisions. It shall also provide technical inputs to all the divisions and shall prepare technical standards and guidelines. This division shall also maintain database of information on activities for which it is responsible. Depending on the functions assigned to UMTA, the database should contain details of projects, funding, public transport routes and services, licenses, etc. Some of the key functions that may be assigned to this division include:

- Providing policy assistance to the GoI, Government of Uttar Pradesh and any local authority or agency in the form of analytical inputs to prepare national/state/local level urban transport policies, standards and guidelines
- Conducting research studies and awareness about good practices in urban transport
- Maintaining records related to urban transport, including details of projects, services and funding
- Developing, monitoring and reporting performance indicators for urban transport as prescribed by Central and State Governments
- Monitoring and advising on public transport safety
- Undertaking research on innovative sustainable transport solutions and their applicability in Lucknow Urban Mobility Area at large
- Preparation of standards and guidelines specific to transport engineering or as deemed necessary time to time
- Providing technical inputs and support to other divisions as and when required
- Coordinating with all relevant implementing agencies and supervising project implementation, if required
- Overseeing development and operation of transport systems and facilities
- Reviewing and ensuring project implementation timelines are adhered to
- Supervising and monitoring implementation of projects (by consultants or otherwise)
- Organizing capacity building programmes for staff time to time, in coordination with Corporate Service Division
- Performing all such other functions as may be allocated by the CEO time to time

6.5.2 Organisational staffing

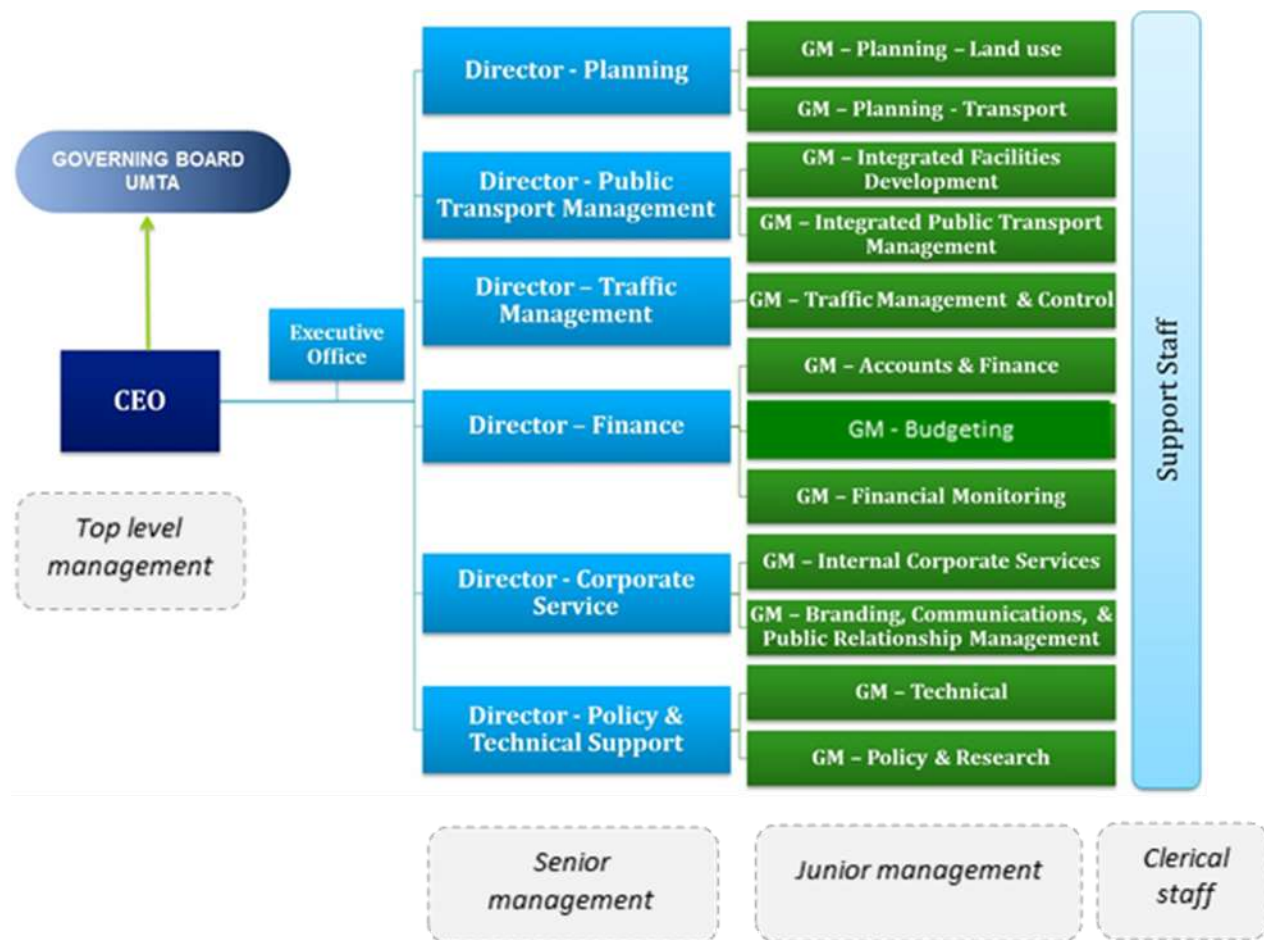
Each of the above mentioned divisions shall be headed by a Director. The Directors shall report to the CEO and shall be responsible for ensuring that all matters of the Governing Board are managed in a systematic, orderly and timely manner, in accordance with the policies and procedures agreed upon by the Board. Each Director shall be supported by a minimum of 2-3 staff (or as deemed necessary by the Governing Board for efficient operations of the division) depending on the extent of activities to be performed by the division.

The organisational chart in Exhibit 15 details out the various professionals to be recruited within the UMTA Secretariat. The details of the educational qualifications, roles and responsibilities of these officials have been specified as templates provided as part of the Annexure III of this document.

Apart from key professionals outlined in the organisational chart, support staff shall also be appointed for smooth functioning of UMTA. It should be noted that the organizational structure and the number of staff proposed here considers the case where all functions of UMTA are performed in-house. Some aspects of UMTA's activities, such as auditing of UTF, accounting and information technology implementation, can be outsourced to service providers. Consultants may be employed for distinct activities such as preparation of the CMP, development of standards and guidelines, review of proposals and audit of implementation, preparation of contracts, preparation and delivery of awareness campaigns and conducting research. Based on the policy adopted by UMTA in carrying out these activities, by either outsourcing or implementing them through in-house staff, the actual number and layers of staff shall be finalised.

An indicative staff requirement based on the activities performed internally and those outsourced, is provided in Annexure IX.

Exhibit 15 Organisational staffing within UMTA



6.6 APPOINTMENT OF SECRETARIAT

After finalising the organisational structure of UMTA, the CEO shall appoint the head of each division and professional staff for each division in consultation with the Governing Board. The consultant appointed for handholding support shall provide assistance to the CEO in recruitment of staff. The number of staff and their required qualifications will be determined by the Governing Board in consultation with the CEO. The details of the educational qualifications and roles and responsibilities of these officials have been specified as templates in Annexure III. Because of the high level of responsibility, UMTA needs to attract highly experienced, capable and professional staff for performing its functions in an effective and efficient manner.

It is suggested that the staff of UMTA should comprise a mix of permanent employees recruited from the open market, public employees on deputation and/or contractual employees. The staff on deputation can be brought from agencies such as Urban Development Department of Uttar Pradesh, Lucknow Development Agency, etc. This would not only allow UMTA to be staffed quickly, but would also allow the staff to be repatriated to their parent department, if they are found unsuitable or in case their services are no longer required. Also, the staff on deputation may be given the option of being permanently absorbed in UMTA, after assessing their performance for

a period of two to three years. The recruitment processes to be followed are provided in Chapter 8.

Other staff can be recruited from the open market as permanent staff of UMTA. This would build employee stability and loyalty and would ensure an employee base that is dedicated exclusively towards the functioning of UMTA.

6.7 DELEGATION OF POWER

The delegation of power shall be exercised in conjunction with delegation of power provided under the UMTA Act and rules and regulations framed under it. The draft UMTA legislation provides that the Governing Board may, by order, delegate any of its powers or duties under the Act or any rule made under it to the CEO, to one or more than one of the officers employed in its Secretariat or to any committee of the Governing Board. Delegation of powers may be broadly categorised into two parts:

- Functional delegation
- Financial delegation

6.7.1 Delegation of Functional Powers to CEO

The Governing Board shall have the right to delegate any of its powers or duties to the CEO or to one or more officials as deemed necessary by the Governing Board. The Board may delegate to the CEO the following functional powers:

- to sign any contract for or on behalf of the Board
- to manage UMTA's functions
- to collect revenues as applicable, on behalf of UMTA
- to discharge debts owed by the Board
- to sign, accept, negotiate, endorse and receive any negotiable instrument on behalf of the Board
- to authorise the disposal of securities of any kind belonging to the Board
- to open and operate current, deposit or credit accounts on behalf of the Board at the bank or financial institution agreed upon with the Board
- any other powers as the Board deems necessary for the efficient implementation of day-to-day business or activities of UMTA

6.7.2 Delegation of Financial Powers to CEO

The Governing Board shall have the right to delegate financial powers to the CEO. The Board shall delegate to the CEO, the financial power to approve expenses of high value (say up to Rs. 30 crore or as decided by the Board at the time of UMTA's establishment and as updated time to time).

The Board shall establish whether the financial limits proposed within the operations document are reasonable in relation to:

- the current financial position of the Board;
- annual budgets approved;
- prior experience regarding transaction flows within the Authority; and
- future financial prospects of the Authority

The delegation of powers to the executive office members have been provided in the subsequent section.

6.7.3 Delegation of powers to executive office members

This section outlines the functional and financial powers delegated to officials in the executive office. Exhibit 16 broadly outlines the powers recommended to be delegated to officials in Lucknow UMTA.

Exhibit 16 delegation of powers and functions within UMTA

Designation	Functional powers	Establishment matters	Financial powers
CEO	<ul style="list-style-type: none"> • Signing of contracts • Line management for all staff 	Full powers for: <ul style="list-style-type: none"> • Promotion related matters • Leave approval • Disciplinary matters • Recruitment related matters • Establishment related operational expenses 	Up to Rs. 30 crore for approved expenses within the annual budget
Director	<ul style="list-style-type: none"> • Public relations management • Disbursement of loans 	<ul style="list-style-type: none"> • Leave approval up to General Manager level • Disciplinary matters (along with the CEO) • Establishment related operational expenses – up to Rs. 50,000 	Up to Rs. 1 crore for approved expenses within the annual budget.
General Manager	<ul style="list-style-type: none"> • Execution of the decisions as directed by Director/ CEO 	<ul style="list-style-type: none"> • Leave approval up to support staff level • Establishment related operational expenses – up to Rs. 10,000 	Up to Rs. 20 lakhs for approved expenses within the annual budget.
Support Staff (At the level of Manager)	Day-to-day activities, with guidance from the General Managers	-	Up to Rs. 10,000 for approved expenses within the annual budget.

The details of the role and responsibilities to be performed by each of the executive officials have been outlined for reference as templates in Annexure III.

6.7.4 Management of delegations

The delegation of powers shall be reviewed annually by a team selected by the Governing Board, which shall be responsible for proposing changes to the Board for consideration and approval, as deemed necessary. The CEO shall be responsible for undertaking the update required for power delegation. The original instruments containing the delegations authorised by the Governing Board shall be retained on file by the Director - Finance. Both the Director - Finance and General Manager - Accounts and Finance shall obtain and maintain specimen signatures of the financial authorizing senior officials of UMTA at all times. All new contracts and any renewal of existing contracts to be signed by the Governing Board shall be authorised by the CEO. The General Manager – Internal Corporate Services shall maintain originals of all contracts.

Disposal of all redundant stores / company assets / fixed assets are to be authorised in writing by a Disposals Committee delegated by the CEO. Where a financial authorising person takes leave or the person is away for a long period, a senior official shall be designated in his/her absence, with a written approval of the Board.

6.8 CONCLUSION

This chapter described the process of operationalisation of Lucknow UMTA, with description of various aspects such as the engagement of consultant for handholding support, setting up and mobilisation of Governing Board, procedure for appointment of the CEO and other key professionals, structure of the organisation, functions of various divisions, delegation of powers, etc. The next chapter outlines the guidelines for carrying out various functions by Lucknow UMTA.

7. OPERATIONALISATION OF FUNCTIONS

7.1 INTRODUCTION

The basic objective behind formation of Lucknow UMTA is to fill the existing institutional gaps in transport planning and management functions undertaken by multiple agencies within Lucknow Urban Mobility Area.

In this context, this chapter outlines guidelines for carrying out various functions of UMTA in order to facilitate the smooth functioning of the Authority. Typical work flow charts have been provided for each of the specific functions.

7.2 POLICIES, PROGRAMMES, STANDARDS AND GUIDELINES

There exist various policy issues concerning urban transport in Lucknow. Some of them relate to balancing the supply and demand of various transport services, type of mode share, technologies required for vehicles, types of fuels, split between public and private modes and operation of public transport modes and finally, decisions relating to financing urban transport investments. These policy decisions may be taken across all three tiers of the government (centre/state/local), depending upon which level is better equipped to handle the related financial and technical issues.

Policy decisions pertaining to land-use, which are undertaken by Lucknow Development Authority may have huge implications on urban transport. For example, compact cities generally require shorter travel distances which allow a larger share of travel needs to be met by walking and cycling, as well as public transport. On the contrary, sprawling cities offer generously spaced out locations, where travel distances tend to be longer and personal motor vehicles become more important in meeting travel needs. In such cities, policies may give preference to TOD.

Considering the fact that Lucknow UMTA shall oversee local urban transport needs, it should be in a position to provide expert inputs and insights to all levels of government in developing policies and programmes. In view of this, it has been suggested that UMTA's role would be to:

- Assist and advise Government of Uttar Pradesh on urban transport matters which would include providing analytical inputs, recommendations, advice and assistance on urban transport policy, standards and guidelines.
- Provide inputs to Lucknow Development Authority, Lucknow Nagar Nigam and other ULBs for developing urban transport policies, strategies, standards and guidelines for the Urban Mobility Area in accordance with national and state level policies, standards and guidelines.

UMTA, through its Policy and Technical Support Division, would carry out the activities required to implement these functions.

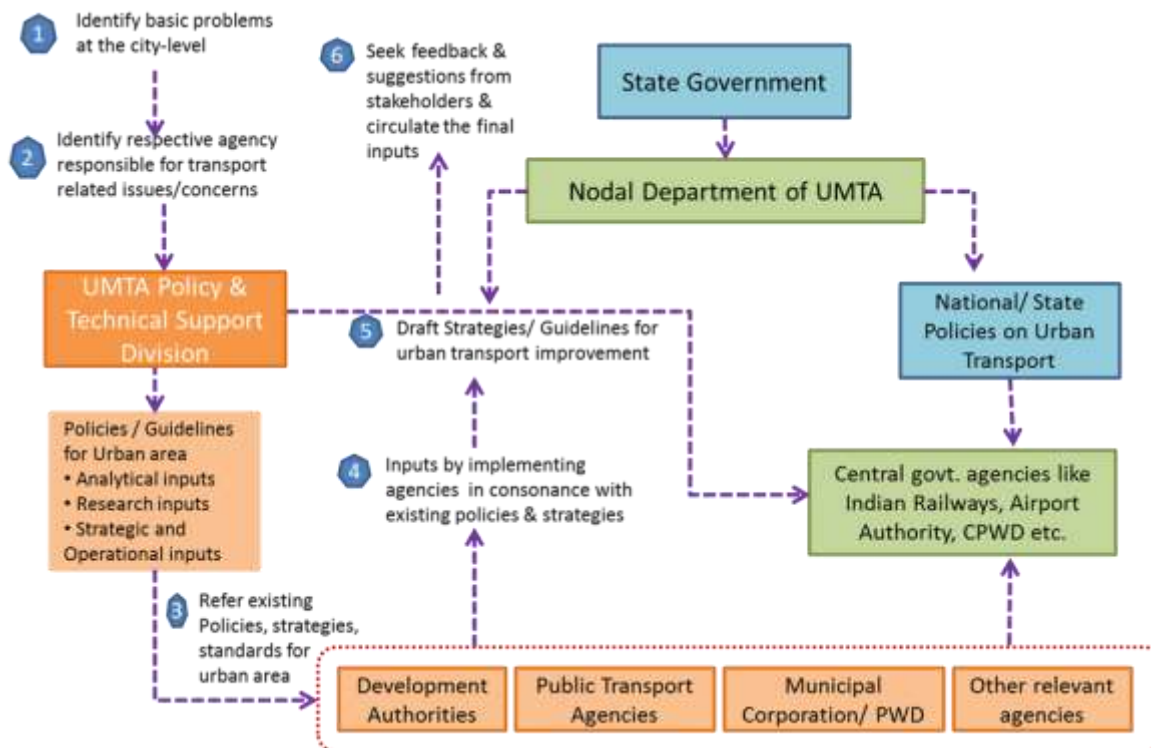
7.2.1 Guidelines for providing inputs in urban transport policy

The process of developing public policy is an activity that generally involves research, analysis, consultation and synthesis of information to produce recommendations. UMTA's Policy and Technical Support Division, in coordination with implementing agencies, shall be responsible for providing inputs to the Central Government, Government of Uttar Pradesh and municipalities in

Lucknow for preparation of urban transport policy for Lucknow Urban Mobility Area. A process flow chart depicting the inputs to urban transport policy, standards and guidelines is shown in **Error! Reference source not found.** The inputs provided by UMTA should, inter-alia, include:

- ✓ **Analytical inputs:** UMTA shall provide practical and relevant analytical inputs based on deep analysis. For example, it could provide inputs on costs incurred in management of parking infrastructure, revenue potential from infrastructure used for advertising, etc.
- ✓ **Research Inputs:** UMTA shall carry out any research exercise that it has undertaken by itself or has been requested by Government of Uttar Pradesh or any central level agency for the preparation of urban transport policies, standards and guidelines. For example, UMTA may provide research inputs on traffic management related issues, use of information technology in urban transport,
- ✓ **Strategic and operational inputs:** UMTA may also provide strategic inputs in overall improvement of urban transport in Lucknow Urban Mobility Area. For example, it may provide inputs on applicability and feasibility of congestion charges scheme. Further, UMTA may provide inputs on identifying innovative sources of funding for urban transport.

Exhibit 17 Process flow chart to providing inputs to urban transport policy, standard and guidelines



UMTA’s Policy and Technical Support division shall be responsible for preparation of urban transport policies, standards for Lucknow Urban Mobility Area as deemed necessary by Government of Uttar Pradesh time to time. The steps involved in carrying out the activities illustrated in the flow chart are described below:

Step 1: The first and foremost step in the provision of policy recommendations shall be identifying the problem at hand and defining it clearly. It is important to distinguish the repercussions of the problem from the actual problem. For example, Lucknow may face heavy congestion, which may be a symptom of a number of issues such as lack of enforcement of traffic discipline, insufficient availability of public transport, etc.

Step 2: Following problem identification, UMTA shall determine the nature of the problem. Increasingly, urban transport issues and solutions to them are multi-faceted and multi-layered, often involving more than one department and level of government. Due to the cross cutting nature of these problems, UMTA would need to identify the department which was involved in developing the policy or is capable of addressing the challenge at hand.

Step 3: Following this, UMTA shall deploy suitable resources in the form of policy advisors and provide them with the required infrastructure (such as information technology, support, access to database, research studies, etc.). It is noteworthy to point out that UMTA may exercise the option of outsourcing any of these activities to a consultant with a clear set of terms of reference.

Step 4: UMTA may refer to existing policies and guidelines that have been prepared for its jurisdiction. This is important because:

- i. It ensures that UMTA does not work towards developing policies/standards/guidelines that already exist;
- ii. It allows undertaking activities for improvement of existing policies, standards and guidelines to ensure that functional and institutional gaps and overlaps are addressed. For example, the safety guidelines for operating a bus may be available in certain cases. In such a scenario, UMTA should focus on building guidelines as to how a bus should operate on a corridor.

Step 5: Further, UMTA should refer to any existing policies and guidelines that have been prepared by the Central Government and Government of Uttar Pradesh. This is important because:

- i. It ensures that UMTA does not work towards developing policies/standards/guidelines that already exist;
- ii. It allows undertaking activities for adoption of existing policies, standards and guidelines.

Step 6: The next step shall be to seek inputs of other agencies (including implementing agencies, public transport operators and other planning agencies) on urban transport policies, standards and guidelines. These inputs will help in understanding the perspectives of such agencies and in preparing practical and appropriate policies, standards and guidelines.

Besides the above mentioned steps, UMTA may conduct its own research studies and reviews of best practices.

Step 7: Based on its experience, review of already existing works and inputs solicited from other agencies, UMTA shall draft its inputs on different policies, standards and guidelines. It shall also develop performance indicators, wherever applicable. This could be used by central, state and local levels of government for improvement of urban transport.

At the same time, UMTA may provide necessary inputs on reviewing and updating existing policies and strategies to reflect new directions and changing circumstances.

Step 8: Once the draft inputs have been prepared, they may be further strengthened by taking feedback and suggestions from different stakeholders. The finalised inputs may be then circulated to relevant agencies.

It is advised that UMTA refers to the document - “A Guide to Policy Development”, Office of the Auditor General, Manitoba, 2003 – for carrying out the above function.

7.2.2 Service Level Benchmarking

Service level benchmarking in the context of urban transport, is a process of comparing performance levels against set targets or best practice cases. It helps in identifying the existing gaps and challenges in urban transport systems. Benchmarking is well recognized as a crucial mechanism for introducing accountability in service delivery. It can help a city in identifying performance gaps and facilitating improvements, through continuous sharing of information and best practices, ultimately resulting in better service delivery. The process of service level benchmarking is illustrated in Exhibit 18.

To measure the performance of urban transport parameters over time in Lucknow, it is important that the performance levels are monitored against set benchmarks. In this context, MoUD has initiated an exercise to define service level benchmarks, for the following areas of intervention:

- Public transport in Lucknow
- Pedestrian infrastructure facilities
- Non-motorized transport facilities
- Use of ITS
- Travel speed along major corridors
- Road safety
- Availability of parking facilities
- Pollution levels
- Land-use and transport integration
- Financial sustainability of public transport

Exhibit 18 Process of service level benchmarking



In the context of Lucknow, the role of UMTA would be to monitor the performance on parameters highlighted by the MoUD. These performance measurements, once estimated by UMTA, shall be reported to Government of Uttar Pradesh, which will then undertake steps for disseminating the data. For UMTA to precisely measure the performance in relation to the set benchmarks, it would

have to adopt clear definitions and methodologies to eliminate any bias in measurement and reporting.

The output expected from UMTA in this context would be periodic performance reports on the SLBs. The periodicity of these reports can be finalized by the Governing Board at the time of finalization of functions of UMTA. The following guiding principles would be useful for initiating performance reporting:

- To begin with, data formats and processes defined for performance measurement should be kept simple.
- The chairperson of UMTA shall take the lead in making the service level benchmarks operational
- UMTA staff should be provided training and orientation on service level benchmarks to enable them discharge their respective roles.

For the service level benchmarks defined by MoUD, reference to “Service Level Benchmarks for Urban Transport at a Glance”⁵ is indicated.

7.3 COMPREHENSIVE MOBILITY PLAN

One of the prime functions of UMTA is the preparation/ revision of CMP for Lucknow Urban Mobility Area. The CMP shall act as a macro-level plan and a vision statement, which shall determine the direction in which the transport system of Lucknow Urban Mobility Area will grow. It shall focus on achieving a desirable accessibility and mobility pattern for people and goods within UMTA’s jurisdiction and shall integrate land-use and transport planning processes. It shall aim at developing sustainable urban transport strategies for providing a safe, secure, efficient, reliable and seamlessly connected urban transport system that supports and enhances economic, social and environmental stability. Hence, preparation/ revision of CMP is one of the prime functions of UMTA.

Exhibit 19 Salient features of CMP

Main features of a CMP

- Encourages efficient and inclusive transport modes such as public transport and non-motorized modes
- Prioritizes mobility for all socio-economic groups and genders, by identifying the socio-economic background of different groups and their travel patterns
- Ensures provision of a recognized and effective platform for integrating land-use and transport planning
- Plans for integration of all public transport systems for seamless mobility of people and goods
- Focuses on the optimization of passenger as well as goods transport
- Addresses impacts of transport on air quality, safety and social aspects

The CMP for Lucknow Urban Mobility Area shall be in accordance with NUTP 2006 guidelines, including public transportation and non-motorised transportation in conjunction with development

⁵ Refer - <http://jnnurm.nic.in/wp-content/uploads/2010/12/SLB-Urban-Transport.pdf>

plans. The CMP would differ from conventional transport plans on at least two counts:

- a. It shall adopt a scientific approach towards understanding the mobility needs of people and optimise networks designs so as to better utilise the available transport infrastructure and improve public infrastructure.
- b. It shall aim at integrating land-use and transport planning. Since land-use planning heavily influences the travel patterns of citizens, CMP shall scrutinise the land-use patterns from the perspective of developing urban transport. For example, in achieving transit-oriented-development (TOD) and reducing reliance on private vehicles, the CMP shall integrate commercial and residential areas development with mass transit development.

Exhibit 20 Case study- Boulder, Colorado

Boulder's Transport Master Plan, Colorado

Transport Master Plan or TMP was first adopted by the city of Boulder in 1989 with a vision to create a safe, convenient and sustainable transportation system. The five prime areas of focus of TMP are:

1. TDM (Transportation Demand Management) - TDM provides a suitable and accessible system to increase the use of public transport and manage the same with respect to the demand. Several TDM strategies have been implemented. For example, distribution of Eco Pass (annual bus pass), van-pooling assistance, developing a toolkit to assist developers and employers in transport operations, etc.
2. Complete Streets - It aims at planning an infrastructure design to accommodate all modes of transportation. A Complete Street Transit action plan was formulated in 2014 to improve the bus rapid transit system, expand bike capacity, support regional flex service, etc.
3. Funding - TMP focuses on creating a sustainable funding model that focuses on judicious spending. 84% of the total funding is used in basic maintenance and operations.
4. Sustainability - Apart from planning travel and improving accessibility, TMP also aims at reducing greenhouse emissions arising from transportation and improving the liveability of the neighbourhoods by integrating transport planning.
5. Regional Travel – Under TMP, the city works with various regional agencies to provide assortment of multi-modal transport and improve regional travel. The management includes that of 250,000 vehicles that commute in and out of Boulder every day.

Key Outcomes – More than 250,000 vehicles commute in and out of Boulder every day. Since TMP's formation, the use of local transit route has increased by 300%. The use of bus in Boulder is twice the national average.

Relevance to the Indian context – The use of a CMP can bring substantial changes in transportation planning of a city. It can help in TOD and improve the liveability for residents as was the case with TMP.

Exhibit 20 presents a case study on Boulder's transport master plan in Colorado.

The following sections highlight some of the broad guidelines and components of CMP, which

shall act as guidelines in preparing CMP.⁶

7.3.1 Guidelines to development of a CMP

The successful development of a CMP would require collaboration among various levels of government and relevant urban transport stakeholders. It should give consideration to all modes of transport in a city and focus on their interconnectivity. The key steps to be followed during preparation of CMP would include the following:

Step 1: Understanding the city

The first task shall be to fully identify the planning area, land-use distribution and mobility patterns within Lucknow Urban Mobility Area so as to understand the mobility needs of the people. This can be done by administering surveys and studies to review the social and demographic profile of the city, using the following indicators:

- Spatial distribution of population
- Population growth rate
- Population density
- Sex ratio
- Literacy level
- Employment structure
- Economic profile of Lucknow Urban Mobility Area

Step 2: Identifying issues and challenges

The existing transport system in Lucknow shall be assessed and reviewed to understand where it currently stands, how the transport system is used and what are the major roadblocks and challenges being faced by it. The review of the existing urban transport scenario would include review of:

- Land-use pattern
- Existing transport infrastructure
- Public transport system
- Traffic movement pattern (including freight movement)
- Traffic safety and enforcement
- Growth in vehicle registration
- Institutional and financial framework
- Environment and social situation

The current scenario in urban transport can be ascertained by administering primary transport

⁶ For detailed guidelines, refer to CMP Revised Toolkit, 2014

demand surveys such as:

- Traffic volume count survey
- Origin-destination survey (household O-D, roadside O-D)
- Turning movement survey at intersection
- Occupancy survey
- On and off-street parking survey
- Road network inventory survey
- Passenger terminal inventory survey
- Speed flow survey
- Bus Transport: Boarding/ Alighting survey
- Bus passenger user survey
- Other Public Transport Modes: Boarding/ Alighting survey
- Other Public Transport Modes: User survey
- Intermediate Public Transport: User survey
- Intermediate Public Transport: Operator survey
- Goods Focal Point – Entry exit survey
- Goods Focal Point – Parking survey
- Goods Focal Point – Vehicle operator survey
- Establishment survey
- Work place survey
- Floating vehicle population survey
- Home interview survey

Step 3: Outlining a vision for CMP

A strategic vision would need to be concerted to guide the overall planning process for preparation of CMP. This vision should be based on the specific needs of Lucknow Urban Mobility Area and should aim at maximizing benefits for the community rather than simply planning a more efficient transport system.

Examples of the CMP vision can be:

- Seamless inter-modal transfer and single travel experience to the commuter by connecting various transportation modes including non-motorised transport in a safe, comfortable, secure and timely manner.
- To evolve an integrated transportation system that contributes to the city's productivity

and improves quality of life with minimal environmental impact.

- To achieve a sustainable transport system in the city that achieves and balances social, economic and environmental objectives.

Step 4: Set objectives and strategic targets

CMP should set specific objectives driven by Lucknow's travel patterns. The objectives should reflect the vision set and have support from the elected representatives of the local government. Targets should be aligned with objectives and should provide a benchmark for measuring achievement.

Step 5: Predicting future scenarios

Based on the data collected and the vision and objectives specified, a likely future scenario should be predicted with a 'business as usual' approach and a 'desired' approach. This would enable the identification of gaps between current and likely future situations, considering where the transport system stands today and which direction it is envisaged to go in the near short, medium and long term. This stage would involve preparation of models for planning, including:

- Trip generation model
 - Trip production model
 - Trip attraction model
- Trip distribution model
- Mode choice model
- Traffic assignment model

After having identified the gaps between existing and future scenarios, it should be possible to identify the areas that need intervention to change the status quo.

Step 6: Ascertaining future funding provisions

Prior to developing strategies for urban transport which meet the predicted desirable scenarios, it is important to ascertain funding sources to fund the potential propositions. Even though it is true that funding sources vary time to time, depending on the state of the economy of Lucknow, the political agenda, etc. an attempt should be made to predict the funding provisions that will be available in the short, medium and long term, so as to set a fund estimate in the process of planning. This process would involve seeking inputs from the Finance and Transport Departments of Government of Uttar Pradesh as well as Central Government departments and agencies which provide funding programmes for transport and infrastructure development.

During this step, as well as the next, it is important to explore the potential viability of private sector partnerships, especially when there are clearly-identifiable benefits which can be attributed to the private sector.

Step 7: Designing mobility improvement strategies

Strategies for a sustainable and desirable future transport system should be identified in a realistic and achievable time frame. Strategies should include plans and proposals pertaining to the

following:

- Integration of land-use and transport planning
- Travel demand management and inducing behavioural changes to alternate transport options apart from private cars
- TOD proposals and congestion management
- Public transport improvement plan, including more efficient use and rehabilitation of existing transport infrastructure capacity
- Street design and street classification system with the aim of achieving better urban design for promoting and integrating non-motorised facilities
- Development of complete road proposals, including:
 - Route alignment plans
 - Network improvement
 - Pedestrian network plan
 - Dedicated bicycle network plan
- Parking plan and management strategy, not only for cars, but for other modes
- Freight movement plan
- Passenger/goods terminal proposals for nodal points
- Last mile connectivity and inter-modal facilities
- Signage and way finding plans
- Disabled-friendly transport plan
- Low emission plan

Key Outputs of CMP

- Develop a short term action plan (0-5 years horizon) for addressing critical traffic issues within Lucknow Urban Mobility Area.
- Collection/ update of household, land-use, and travel demand data.
- Formulation of transport strategy for Lucknow Urban Mobility Area.
- Formulation of proposals for transit-oriented development and integration of all public transport systems within Lucknow Urban Mobility Area.
- Identification of a phased programme of transport investments proposals.
- Formulation of proposals for future expansion of public transport systems.
- Propose project prioritization plan.

Each strategy should involve multiple actions that should be aligned to the relevant strategy and to achieve the stated objectives.

Step 8: Prioritizing strategies and programmes

It is imperative that strategies and actions are prioritised into short, medium and long term, to guide implementation. Therefore, the planning process should involve cost - benefit analysis of each strategy and action to assess its positives and negatives. The economic analysis and prioritisation framework has been discussed in subsequent sections.

Step 9: Developing an implementation programme

The prioritised strategies and their corresponding actions should be packed into an implementation programme clearly specifying responsibilities and delivery timelines of implementing agencies. The implementation programme should include the following:

- Implementation strategy of the selected plan
 - Short term plan
 - Medium term plan
 - Long term plan
- Corridors for MRTS (rail and road)
- Redevelopment of existing urban areas
- Local area plans
- Street redevelopment programme

Step 10: Obtaining Approval

After the CMP has been prepared, UMTA shall be required to organise a review meeting and present it before the CEO and the Governing Board for approval. All necessary comments/suggestions provided by the Governing Board should be incorporated in the final CMP report before submission to Government of Uttar Pradesh for its consideration and approval.

Step 11: Reviewing outcomes post CMP preparation

The implementation processes shall be reviewed regularly and priorities shall be adjusted to achieve proposed objectives.

A review of the CMP during the planning process and post implementation should answer the following questions:

- Are the vision and objectives set earlier in the CMP still relevant, given the dynamic social and economic environment of the city?
- What have been the results and outcomes of the CMP? Were these outcomes originally intended?
- Has the CMP fulfilled expectations of all concerned stakeholders?
- How can the results of the CMP be improved through revisions?

During the process of CMP preparation, UMTA should solicit suggestions and feedback from the implementing agencies and relevant stakeholders and discuss them at length internally with its divisional heads. CMP shall be prepared after considering each of these comments and suggestions.

The following sections discuss in detail, some elements of the CMP, which would be central to its preparation.

Responsibility for CMP preparation/revision

UMTA shall be solely responsible for the preparation of CMP for the area under its jurisdiction. Considering the volume of work involved in preparing a CMP, UMTA may hire a consultant for

successfully carrying out the task. UMTA should closely coordinate with the consultants for preparation of CMP. For detailed tasks for preparation of CMP, UMTA should refer to the Revised CMP toolkit issued by MoUD, GoI. The UMTA staff/consultants deployed to develop the CMP shall be required to detail out the CMP document based on the guidelines specified in the Revised CMP toolkit 2014.

Geographical Coverage

The planning area of CMP shall be Lucknow Urban Mobility Area as defined by the UMTA Act. It is recommended that the planning area of CMP be synchronised with the planning area of the land-use plan of the city to ensure integrated planning.

It is also important to note that the future growth of the city in terms of geographical limits will be influenced by development of transport corridors that the CMP prescribes, just like it is influenced by commercial and residential development that the land-use plan prescribes. Therefore, the planning area may be revised and extended in line with revisions prescribed in the land-use plan.

Planning Horizon

The CMP is a macro-level strategic document that proposes investments in the transport sector with long term impact on climate change and other issues. Since CMP implementation shall have long term impacts, the planning horizon for CMP should be at least 20 years. Considering a 20 - year time period, project prioritisation for CMP is recommended to be divided in the following manner:

- Short-term: 0-5 years
- Medium-term: 5-10 years
- Long-term: 10-20 years

Since the transportation network of a city has an intrinsic relationship with its land-use pattern, the planning horizon of CMP should be synchronised with that of the land-use plan, so that planning and implementation of both plans may be carried out in a coordinated manner.

Revision Horizon

It is recommended that the CMP document be reviewed by the Governing Board of UMTA in a timely manner, as prescribed by Government of Uttar Pradesh. This shall entail planning for the prioritised projects in the CMP that should be implemented. The review of CMP should be finalised after due consideration of and integration with the revised land-use plan.

7.3.2 Relationship between Land-Use Plan and CMP

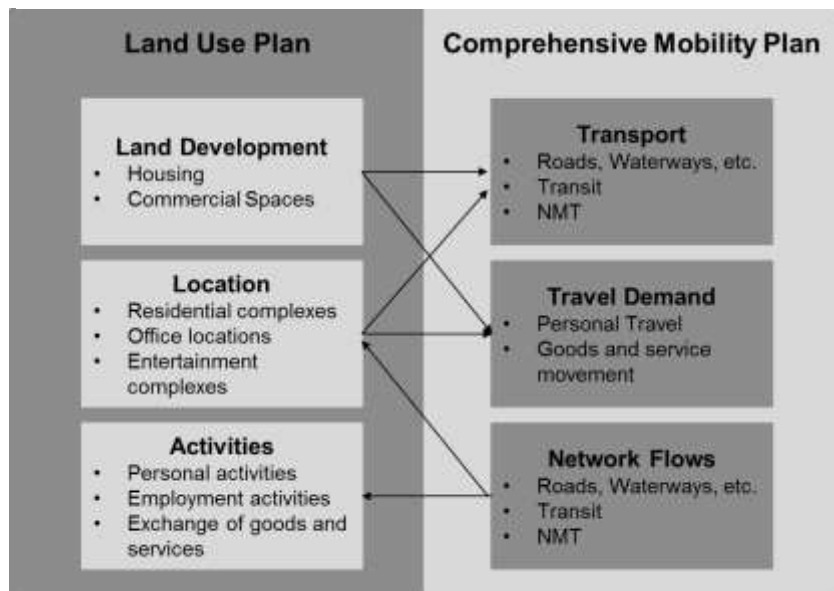
The land-use plan or master plan is a long term statutory document for guiding and regulating the prospective growth and development of Lucknow. It is predominantly based on the components of population growth, infrastructure requirement, city growth pattern and existing land-use. In the case of Lucknow, it is prepared by Lucknow Development Authority which assesses the total land requirement for various purposes.

It is important to understand that there exists a direct two-way relationship between land-use and transport planning.

- The nature of an urban area, including its population density and the mix of residential, commercial and industrial properties, has a lasting influence on the amount and type of transit journeys to and from a location.
- At the same time, the magnitude of access provided by a transport service has an impact on the demand for and use of land located in proximity to that transport service.

Different transit modes can have varied impacts on land-use patterns. For example, public transit modes with heavy infrastructure needs such as heavy and light rail are likely to encourage increased density and consequently, particular types of land-use in their vicinity. In contrast, bus routes which do not require fixed infrastructure, may have different land-use outcomes characterised by low density.

Exhibit 21 Relationship between land-use plan and CMP



Given the profound relationship between land-use and transport, the prime requirement in urban planning is that land-use and transport are planned in an integrated manner in order to minimise the transport demand-supply gap. Fulfilling this requirement will be one of the prime functions of Lucknow UMTA. In this process of integration, the CMP shall review the future land-use patterns as projected by the Town and Country Planning Department, Government of Uttar Pradesh, from the mobility optimisation point of view and select a suitable pattern of land-use/transport integration, if necessary.

Guidelines to Integration of Land-Use Plan and CMP

The process of integrating land-use and transport plans may be undertaken after assessment of the current transport scenario, prediction of the likely future scenarios, but before the formulation of urban transport strategies. The relationship between the land-use plan and the CMP is depicted in Exhibit 21. The following are guidelines for undertaking integration of CMP with the land-use plan⁷:

Step 1: Deploy persons to initiate the process of integration

UMTA may hire a consultant or form a committee of its own staff, responsible for integrating the CMP of Lucknow Urban Mobility Area with the land-use plan, since the jurisdiction of UMTA may

⁷ Refer to Handbook on Integrating Land Use Considerations into Transportation Projects to Address Induced Growth, 2005 for methods for integrating land-use and transport planning.

extend outside the delineated city boundary⁸.

Step 2: Review all previous land-use plans/ city-development plans for the Urban Mobility Area

The next step shall be to review and assess in detail all previous plans pertaining to land-use of Lucknow Urban Mobility Area⁹. The Development Plan for Lucknow shall be thoroughly studied and shall serve as an input to CMP preparation. Assessment of existing/proposed land-use changes are necessary for three main reasons:

- To predict the future land-use to be expected in the absence of any investments or policy changes.
- To assess the impact on land-use attributable to specific infrastructure construction or expansion in the past.
- To assess land-use impacts attributable to changes in transportation policy changes (e.g., parking policies).

Further, this step shall also involve assembling data that will be necessary to conduct analysis. Existing database, surveys, statistical trend analysis, remote sensing technology and GIS are likely to be required for carrying out analysis.

Step 3: Establish assumptions for the future

This step involves determining anticipated changes in regulatory or economic policies, which will have impact on future land-use. This step may require discussions with regulatory practitioners and policy makers.

Step 4: Estimate the Urban Mobility Area's population and employment growth

This step shall identify employment of local population and employment trends; broader state and national level economic and industry trends; and economic forecasting models in order to establish future population and employment trends for various scenarios.

Step 5: Identify land with potential for development

This step shall identify undeveloped and underdeveloped land, and in combination with environmental restrictions and zoning regulations, shall quantify land available to absorb future growth.

Step 6: Assign population and employment to specific locations

This step shall use land availability, cost of development and the attractiveness of various areas to estimate the amount and type of growth that will occur in each area. This stage may require expert interviews and discussions, statistical trend analysis and integrated transportation and land-use models.

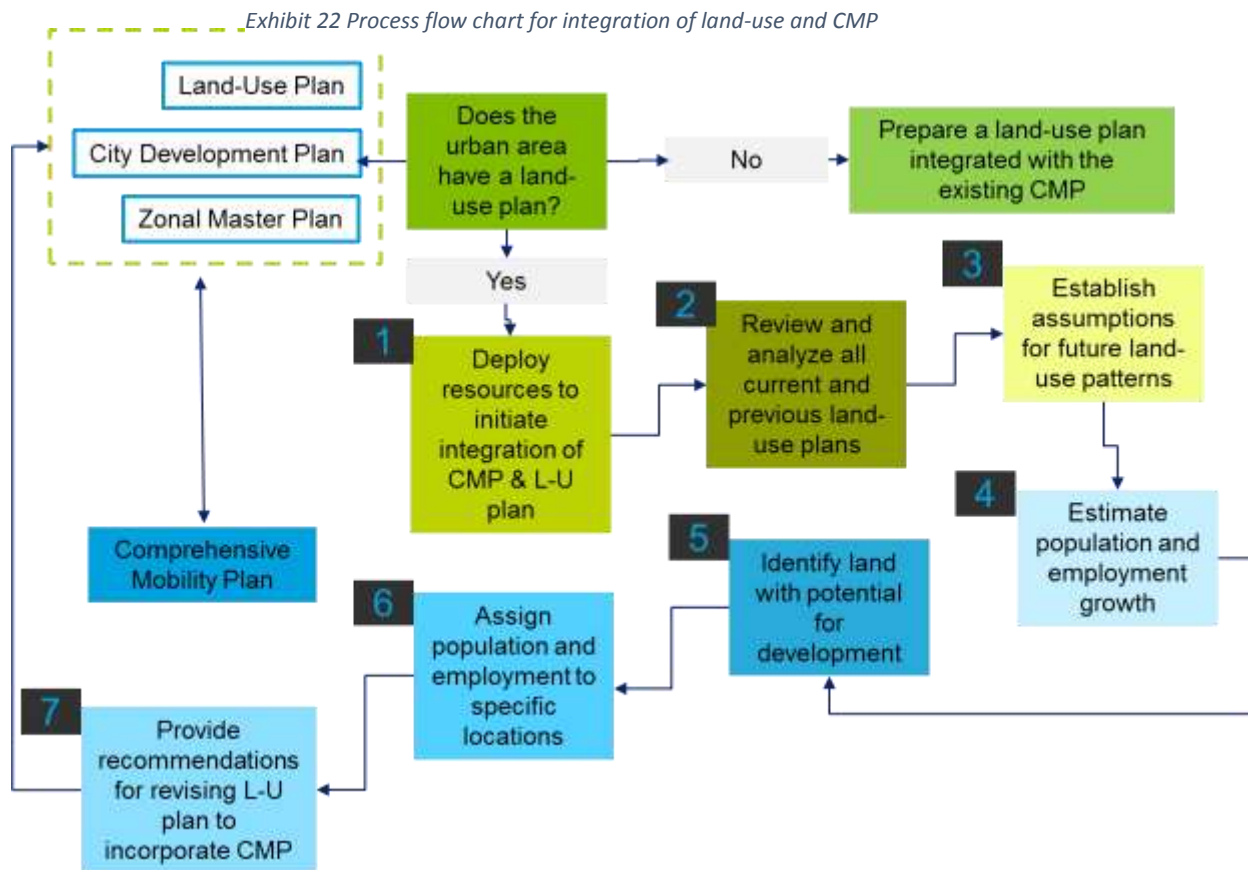
⁸ During the process of integration, UTA is envisaged to work alongside the land-use planning agencies (either in the form of periodic consultations, or deputizing urban planners from different departments for the process of integration).

⁹ In places where the UTA jurisdiction extends over more than one urban local body, the land-use plans for each of these urban areas need to be considered and integrated in the CMP preparation process.

Step 7: Provide recommendations for revising the land-use plan to incorporate the CMP

UMTA should also provide recommendations on preparation/ revision of Lucknow’s land-use plan, in order to incorporate the component of transport planning undertaken in the CMP.

The process flow chart for integration of land-use plan and CMP is represented in Exhibit 22.



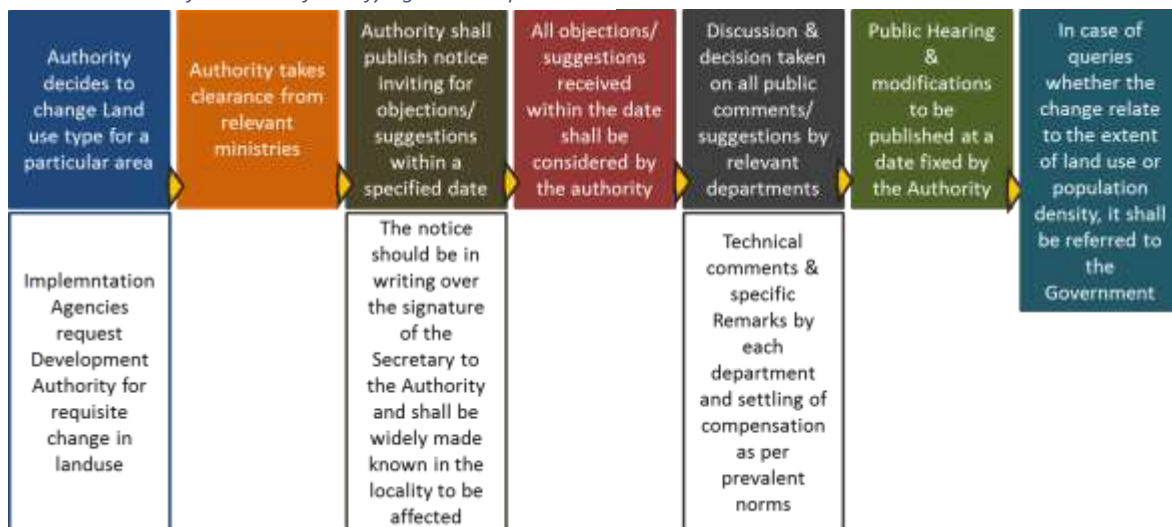
The recommendations should essentially strive to achieve the following:

- Functional cohesion of land-use and transport in the Urban Mobility Area. While planning for the city, it needs to be ensured that all areas are properly accessible and well - connected. The land-use plan should ensure that the transport network, existing as well as proposed, is well integrated with the spatial framework of the city and accordingly, plans for the land-use along major transport corridors.
- The land-use plan should strive for sustainable land-use options by planning in a manner which minimises the need to travel.

Consideration of these aspects while preparation/ revision of the land-use plan are of prime importance and should be taken up as prime responsibilities by Lucknow Development Authority. Government of Uttar Pradesh should be sensitised about the importance of these incorporations in the process of land-use plan preparation/ revision. Change in the existing land-use plan is possible in case the Authority opines that such changes do not affect important alterations in the

character of the plan. The broad procedure undertaken for modification of land-use plan to be undertaken by Lucknow Development Authority, is provided in Exhibit 23 below:

Exhibit 23 Process flow chart of modifying land-use plan



The case study of Singapore is discussed in Exhibit 24. Exhibit 25 illustrates the CMP preparation process.

Exhibit 24 Case Study- Singapore

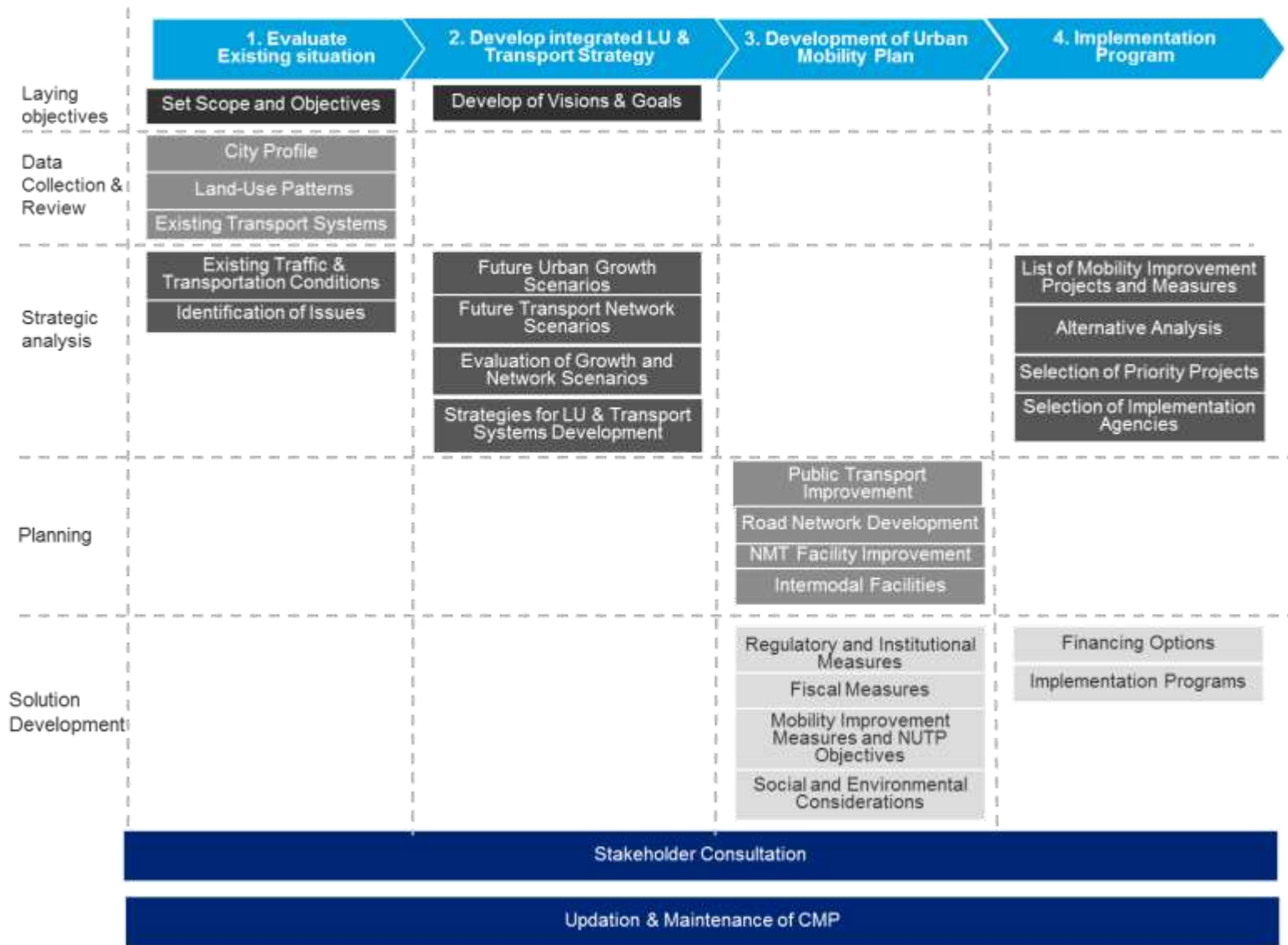
Land-use and transport integration in Singapore

Land-use and transport planning in Singapore is facilitated by two agencies: Urban Redevelopment Authority (URA) and Land Transport Authority (LTA), respectively. URA prepares long term strategic plans, known as **Concept Plans**, which represent a successful example of integrated strategic planning. The Concept Plan lays out the vision for development over at least a 20 year horizon, and the key actions to achieve the vision. It shows the main land-uses (residential, commercial and industrial) and the MRT and main road networks.

The Concept Plan is not a statutory plan, but provides the framework for the preparation (also by the URA) of statutory land-use plans – known as Development Guide Plans (DGPs), which together form what is known as the Master Plan. Further, the Concept Plans incorporate transport policies and the major transport infrastructure networks and facilities, and provide the framework for the formulation and implementation of more detailed transport strategies, policies and programmes by the LTA in support of the Concept Plans. The Concept Plans, therefore, cover aspirations that the community wants to achieve, and confronts major strategic trade-offs and dilemmas. The DGP and the Transport Plans (TPs) take the Concept Plans as a starting point and provide the details of how the aspirations are to be achieved. The operational plans, which are further detailed plans prepared by implementing agencies (Housing and Development Board and Jurong Town Corporation) then bring the Concept Plans to fruition. It can be argued that the relative absence of departmental silos and use of cross-agency committees make a great contribution to integration of government policy formulation and decision making in Singapore. This can be replicated for the Indian case, given the will of technical staff and leadership.

Exhibit 25 Preparation of Comprehensive Mobility Plan

CMP PREPARATION PROCESS



7.3.3 Stakeholder consultation

In order to make the preparation of CMP an inclusive process, it is important to involve key stakeholders including various beneficiary groups at the time of preparation, to achieve a shared understanding of the future urban transport system in Lucknow. Therefore, continuous consultations with the identified stakeholders shall be an important task in CMP preparation, implementation and review stages. The key stakeholders in CMP preparation process shall include the following:

- i. Government bodies like Lucknow Nagar Nigam, Lucknow Development Authority, Public Works Department, Traffic Police, Transport Department, Environment Pollution Control Authority, Transport Corporations like UPSRTC, etc.
- ii. Central Government agencies like NHAI, Indian Railways and Ministry of Defence, etc.
- iii. Elected representatives from Lucknow, Transport Minister, Government of Uttar Pradesh, or Member of Parliament, Lucknow.
- iv. Experts in the field of transport from academic institutes and research bodies and consultants or practitioners in the field.
- v. Non-governmental organisations / civil society organisations
- vi. Operators like auto rickshaw unions, private bus operators or informal operators
- vii. Organised user and beneficiary representative groups

It is important to work with key stakeholders identified above individually and collectively, as they have extensive ground experience of working in the city and would be crucial in understanding the existing scenario for CMP preparation.

Consultations could take the form of surveys, meetings or workshops, so as to identify key transport issues and to test the likely effects of various strategies in addressing them. Further, divergent perspectives on key issues need to be articulated and discussed through stakeholder discussions and meetings. Further, public consultations/ workshops may also be conducted if deemed necessary by the Governing Board. Following are the key guiding principles for stakeholder consultations¹⁰:

- Policy-making should be inclusive and should take into account the views of stakeholders. Public officers should see inherent value in stakeholder feedback.
- The outcome of consultations should not be pre-determined.

Why consult stakeholders?

- Understand stakeholder/public sentiment and the ground situation
- Provide a channel for stakeholders to be heard and enable greater participation in the policy development process
- Gather diverse views and insights from stakeholders/public
- Ascertain feasibility of intended policy change or new initiative
- Obtain buy-in from stakeholders by seeking their contribution to the policies/initiatives to be implemented
- Mitigate or find resolutions to opposing interests to prevent conflicting views at implementation stage
- Couch appropriate public communication messages, particularly for controversial or contentious issues.

¹⁰ Refer to Public Consultation Toolkit, Ministry of the Information, Communications and the Arts (MICA), Singapore, 2010

- Consultations should involve a fair representation of all stakeholders who are affected, interested and/or can contribute to the policy development process.
- Modes of consultation should be carefully selected to reach out to the relevant stakeholders and gather the appropriate types of information.
- The consultation process should be conducted in a transparent, consistent, structured and timely manner. Sufficient time should be given to those being consulted to understand and respond to an issue.
- Consultation material should provide sufficient background information that is clear and easily understandable by participants.
- The scope and parameters of the consultation should be clear to the participants to set the right expectations. Participants should be provided with a clear understanding of how their inputs will be sought and managed.
- UMTA should be responsive and follow through with stakeholders on how their feedback was considered and the extent of its impact on the policy in a constructive manner.
- UMTA should ensure that the consultation process is mutually respectful, non-discriminatory and equitable, regardless of gender, race, age, educational levels or religious beliefs.

Exhibit 26 Case Study- Master Plan Consultations, Singapore

Public Consultations for URA Master Plan 2008

Urban Redevelopment Authority (URA), Singapore, prepared a master plan in 2008 to guide Singapore's physical development over the next 10 to 15 years, of which public consultation and stakeholder engagement were integral components. During the preparation stage, URA conducted dialogues with key stakeholders such as architects, developers, business organisations, non-governmental organisations, academicians and the community. The dialogues allowed the plans to be detailed out to the stakeholders and for them to give URA feedback on the proposals. Based on the input received, URA refined the proposals for the public exhibition. Following this, the draft version of the plan was exhibited to obtain public feedback. This entailed virtual plans and videos being uploaded on URA's website and physical plans, scaled models and videos being exhibited at the URA Centre.

Over 185,000 people viewed the draft plan at the URA Centre and the website and 300 written feedback forms were received on the plan. Based on this input, the master plan was refined and improvised further before being gazetted.

In order to further increase public awareness, URA developed an exhibition of its Master Plan 2008 in eight heartland malls, thereby educating the public of the plan and key proposals and informed the wider populace of changes that would take place in their neighbourhoods. They also allowed the public to provide meaningful feedback on the upcoming developments.

7.3.4 Economic analysis and project prioritisation

The CMP for Lucknow Urban Mobility Area would comprise a number of strategies which would be broken down into projects that would drive investment plans for urban transport in the long, medium and short term. Undertaking a thorough economic analysis to check for the viability of the identified strategies and projects and prioritizing them, therefore, becomes imperative before embarking on such long gestation and high investment programmes. Some of the projects identified by the CMP that would require prioritisation could related to the following:

- Road improvement by way of strengthening and widening
- Construction of new roads
- Construction of bypasses, freeways and expressways
- Developing metro corridors
- Developing, improving, upgrading and extending MRTS and BRTS corridors
- Improving junctions
- Constructing and improving pedestrian footpaths
- Constructing and improving subways/ foot-over-bridges/ road signage/ cycle tracks/ ramps, etc.
- Traffic management
- Improving parking facilities

Constructing terminals integrating different modes

Framework for Economic Analysis

In order to understand the feasibility and viability of each project, its costs, benefits and impacts need to be ascertained. Benefits and impacts associated with a project can be compared with a scenario where the project is not undertaken. The benefits can then be assessed as follows:

- The savings in travel time due to reduced congestion and better speeds.
- Environmental benefits realised due to reduced traffic congestion and fuel consumption. The savings in vehicle operating cost and maintenance cost due to a more efficient transport network that has resulted because of the project. The project impact on facilitating a modal shift may also be measured.

Once the benefits have been assessed, the project costs for construction of transport corridors, etc. shall be computed. These costs shall include both capital and maintenance costs. For example, for road-based infrastructure, maintenance cost can be computed as a percentage of construction cost per year for both routine and periodic maintenance. To estimate the environmental costs, the amount of fuel consumed by vehicles in various projects can be estimated and monetised using the price used for carbon credits.

Once costs and benefits have been computed, indicators such as economic internal rate of return, net present value and cost-benefit ratio can be estimated, and projects may be compared across

these parameters.

Sensitivity Analysis

Post analysing projects in terms of their economic viability, a sensitivity analysis shall be carried out to decide upon the preferred option. A sensitivity analysis subjects the investment in question to various risks, which culminate into either an increase in project costs, or a reduction in benefits, or both. The following sensitivity scenarios may be considered:

- Increase in project cost by x %
- Reduction in project benefits by x %
- Increase in project cost by x % and reduction in project benefits by x %
- Lower than expected travel demand and traffic growth rates
- Loss of road capacity and fall in travel speeds due to poor traffic enforcement

Framework for project prioritisation

1. Measure the viability of each transport corridor under consideration (by computing ridership or utilisation to cost ratio) to gauge project utilisation per unit investment. Higher the utilisation, higher the requirement of the project on priority.
2. In order to gauge the implementation probability of the project, undertake an environmental and social impact assessment. In case a corridor is seen as having issues related to resettlement or forest clearances, it is likely that its implementation will be postponed. The priority given to such projects should incorporate such adjustments.

Framework for Project Prioritisation

Prioritisation of projects for improvement of the city's transport scenario is one of the most important aspects in successful project implementation. The project prioritisation process as part of the CMP, shall enable greater planning efficiency. The project prioritisation may be done by applying weightages to various parameters as decided by UMTA's Governing Board¹¹. Prioritising transport projects may be a difficult task since many sustainable transport projects may have equal priority and hence, their planning may be phased out based on short, medium and long term planning.

Some of the guiding parameters that may go into project prioritisation are highlighted below:

- Utilisation of the corridor in terms of passenger km, which specifies the need for developing a particular facility
- Estimated cost of the project. Low investment projects may be preferred due to limited fund availability over those projects that have a high investment cost.
- The extent up to which the project utilises existing infrastructure, facilities and services.

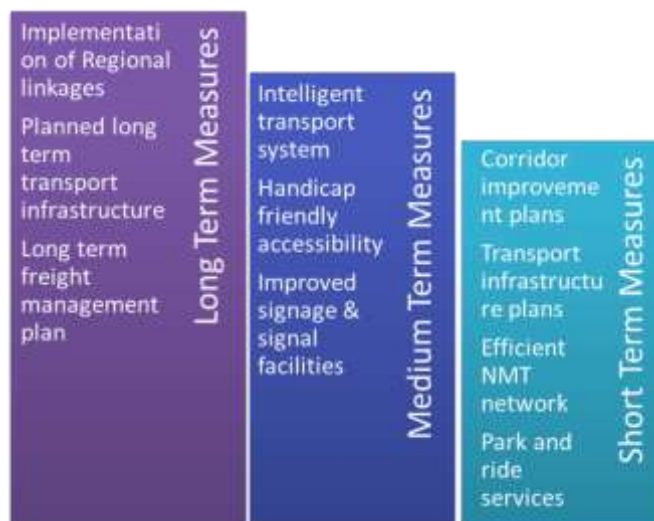
Exhibit 27 Prioritisation guidelines: Long, medium and short term

¹¹ Refer to Preparing a Comprehensive Mobility Plan – A Toolkit, MoUD, 2014 for guidelines to setting criteria for project prioritization.

- The requirements and costs of maintaining the infrastructure envisaged by the project in a state of good repair.
- Environmental and social impact of the project.

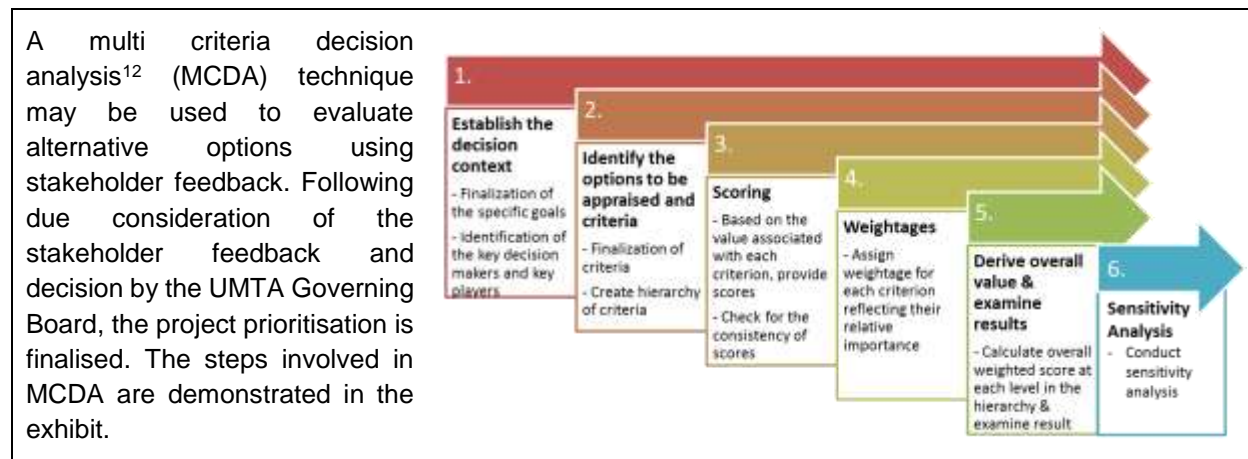
The prioritisation of projects may be categorised over different time frames based on the following criteria as depicted in Exhibit 27.

- Short-term projects should be based on area level traffic circulation plans, improving the safety and accessibility of pedestrians, cyclists and public transport users, implementing traffic signals, etc.
- Medium-term projects may involve implementation of corridor level cycle tracks, mass transit corridors, public transport fleet improvement and parking policy development. The medium term measures may largely aim at improving the public transport and NMT modal shares.
- Long-term projects include implementing city level networks for walking and cycling, mass transit networks, parking regulation measures, pricing strategies and other such measures aimed at improving the overall road network to provide adequate accessibility for existing developed areas and to meet the overall vision of the CMP for Lucknow Urban Mobility Area.



A tentative project prioritisation plan along with the CMP shall be proposed to be discussed with all the key stakeholders for their feedback and suggestions. Exhibit 28 highlights the project prioritisation plan following MCDA technique.

Exhibit 28 Project prioritisation plan following MCDA



The final output of CMP shall be a list of prioritised strategies pertaining to various aspects of urban transport. Some of the strategies suggested in the CMP, particularly those related to corridor identification and development would need to undergo alternative or options analysis in order to finalise what type of MRTS is best suited. This has been explained in the following section.

7.4 ALTERNATIVE ANALYSIS

Following the planning for sustainable mobility options for the Urban Mobility Area, the next major process is Alternative Analysis. Among various strategies proposed, the CMP of Lucknow is expected to identify priority corridor(s) that need transportation improvements. Once a corridor has been identified, the next step would be assess different transportation options for that corridor – whether MRTS, corridor alignment options or different land-use scenario options for a corridor. The CMP will also spell out all transport alternatives for the proposed corridor(s). Alternative Analysis (AA) shall evaluate the alternatives for the identified corridor and suggests the best option suited to the capital region. As an example, suppose the CMP proposes a particular corridor to be developed as a long term strategy, and advocates alternatives like an improved bus system, BRTS, a metro or mono-rail. AA would evaluate all these alternatives based on defined criteria and select the alternative best suited for the corridor. Therefore, during AA, the priority corridor identified in the comprehensive planning is studied in detail, focussing on the effects of alternative solutions on the corridor’s transportation problems. The alternatives shall be analysed in detail, based on the following basic criteria:

- Overall benefits and public well-being achieved due to the project
- Effective cost involved in the project implementation
- Impact caused by each alternative and its expanse
- Comprehensive technical basis available for the selected technical alternatives

¹² eprints.lse.ac.uk

- Economic impact
- Environmental sustainability
- Financial sustainability
- Promotion of multi-modality

The responsibility of preparation of the Alternative Analysis report based on the CMP document shall lie with UMTA, which can either use its in-house technical staff, or appoint a consultant for its preparation. The Alternative Analysis report shall be prepared in close coordination with the key stakeholders, UMTA and the implementing agencies. The report shall be cleared only after the approval of the final alternatives by the Governing Board.

Based on the AA Report, the Multi-year program shall be finalised by UMTA and sent across to the implementing agencies. For a step-by-step guide on preparation of AA, please refer to Toolkit for Alternative Analysis prepared by MoUD. Exhibit 29 gives a brief gist of the various steps involved in the process of AA.

Exhibit 29 Checklist for conducting alternative analysis

Process	Checklist	Action
Step 1 – Set goals and objectives	Have the problems with the corridor been identified? E.g. congestion, low capacity, safety	UMTA
	Goals and objectives identified? E.g. mobility (connects houses to offices, easy inter-modal transfer), Safety (minimise accidents across all modes, conformation with engineering design and safety standards), capacity (provide sufficient capacity, minimise delay)	UMTA
	What is the “big decision” that has to be made? E.g. transit system or highway alignment? What type of bus transit is suitable along the corridor?	UMTA
Step 2 – Set up a committee within UMTA	Have decision makers been identified?	UMTA
	Have all decision makers been contacted?	UMTA

	Does UMTA have technical expertise to conduct the AA or will it have to hire a consultant?	UMTA
Step 3 – Review technical issues, data and models	Have the problems been identified? E.g. Current transit travel times during the peak period 45-75 minutes, as against 20-30 minutes by car, corridor contains a significant percentage of transit dependents, etc.	UMTA
	Causes for performance deficiencies? E.g. For congestion, possible causes may be rapid residential and employment growth, inadequate transit system, demand exceeds capacity, poor past land-use planning, etc.	UMTA
Step 4 – Define scope of services	Terms of reference	UMTA
	Time frame/ work plan for the study	UMTA
	Budget	UMTA
Step 5 – Framing the analysis	Have the terms of reference been refined? (Revisit/ refine problem statements, causes of the problems identified in the terms of reference, assess need to update travel demand model)	Consultant ¹³
	Evaluation criteria to be established at various levels (effectiveness and comprehensiveness in measuring goal attainment, conformity with NUTP)	Consultant
	Link performance measures to goals and objectives	Consultant

¹³ The final responsibilities of any task assigned to the consultant remains with UMTA.

	Decide rating scale	Consultant
	Existing and future needs analysis	Consultant
	Analysis of strengths, weakness, opportunity and threats	Consultant
Step 6 – Identification of alternatives	Plan and design Standards. E.g. Indian Roads Congress Design Standards, Guidelines and Codes, etc.	Consultant
	Operational plans for each alternative, all having same parameters (Fare assumptions, parking assumptions, approximate alignment, route network- feeder and trunk, etc.)	Consultant
	Is there any screening needed?	Consultant
	What are the criteria, depending on screening levels?	Consultant
Step 7 – Final definition of alternatives	Conceptual engineering (plans, drawings)	Consultant
	Travel demand forecasting (base year model, forecast model)	Consultant
	Operational planning (transportation impacts, land-use impacts, environmental and social impacts, economic impacts, project development costs/ capital costs, operation and maintenance costs, financial plans)	Consultant
Step 8 - Public review process	Identify relevant stakeholders	Consultant
	Decide on mode of contact, meeting date	Consultant
	Decide on public meeting dates	Consultant
	Inform public about the feedback process time-frame, format, etc.	Consultant

Step 9 – Evaluation	Rating scale	Consultant
	Performance measures to be evaluated	Consultant
	Grouping of performance measures	Consultant
	Composite score of each evaluation category by alternative	Consultant
	Final score – sum of score of all evaluation categories by alternative	Consultant
Step 10 - Selection of preferred alternative	Present evaluation matrix in previous step with all supporting documents	Consultant
	Public feedback	Consultant
	Decision on preferred alternative	Consultant
	Public meeting notification	Consultant

Post preparation of the AA report, UMTA would finalise corridor strategies and identify the project to be undertaken in the short to medium turn (up to 15 years). This will set the way for subsequent studies like the Detailed Project Report, by the concerned implementing agencies, which would lead the selected project to the project sanction stage. A process flow chart for Alternative Analysis is presented in Exhibit 30. A brief description on the Alternative analysis of transportation models in Tulsa, Oklahoma is presented in Exhibit 31.

Exhibit 30 Process flow chart for alternative analysis

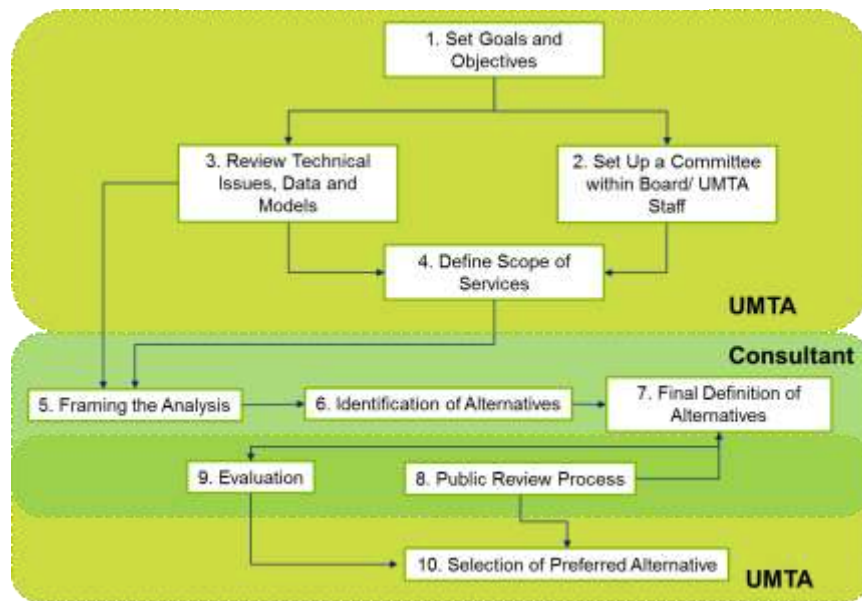


Exhibit 31 Alternative analysis (AA) of transportation models

CASE STUDY: Alternative Analysis (AA) of transportation models by INCOG – Tulsa Metropolitan Area, Oklahoma

With the increase in population and the flow of traffic in Tulsa, the problems of congestion and traffic accidents amplified. The INCOG (Indian National Council of Governments), which is a voluntary association of local and tribal governments in the Tulsa metropolitan area in northeast Oklahoma, conducted a study in the year 2000, to identify and analyse the various alternative transportation modes and select the one that meets the requirement. The existing and future conditions of the city were also examined to set a base for the analysis of alternatives.

Key Concepts: In the first step, the factors that may affect the selection of the alternatives were identified and then the various options were identified. These factors included travel time, costs, frequency, comfort, environmental consequences, etc. The various alternatives in the case of Tulsa were identified as buses, BRTS, light rail, commuter rail and pedestrian lanes. The selection process began with demand estimation, identifying modes that are apt considering the demand and the assessment of the pros and cons of each mode selected. Following this, the cost - benefit, mobility and land-use benefit analysis were required to make the final selection of the alternative.

Relevance to Indian context: Several Indian metropolitan areas face similar problems and alternative analysis of various modes of transportation can provide a foundation of sound congestion management and several economic incentives. Using AA, different options can be suggested on the selected routes. It is important to note that the suggested alternative might not be a single mode of transportation, but a group of such modes and steps that can be implemented over an appropriate period.

7.5 TRANSPORT INVESTMENT PROGRAMME

It is imperative that strategic planning undertaken during preparation of CMP and Alternative Analysis is closely integrated with budgeting. In view of this, it is envisaged that UMTA would prepare a Transport Investment Programme for Lucknow Urban Mobility Area, to achieve the goals of the CMP and plan financing of projects proposed in CMP. Prior to this, implementing agencies in Lucknow Urban Mobility Area would draw MYPs, which would be tactical in nature and closely integrated with the strategies proposed in the CMP. The MYP shall present activities that an implementing agency would pursue over a short to medium term planning horizon, towards achieving the strategies proposed in the CMP, based on reasonable expectations of the project budget. MYPs submitted by the implementing agencies would enable UMTA to prepare a consolidated Transport Investment Programme for Lucknow Urban Mobility Area. The Transport Investment Programme shall be a detailed five – year programme for financing the projects proposed in CMP, based on inputs from the MYPs.

UMTA would review and approve the MYPs drawn by implementing agencies, in order to ensure that the programmes meet the guidelines set by CMP, are in line with the state and national level priorities and within the limits of the available resources. Therefore, through the process of approving the MYPs, UMTA would play an indirect role in overseeing the planning process of implementing agencies.

The MYP would primarily make use of technical costing and planning tools to generate a budget request for a transport sector investment, in line with the projects proposed within CMP. It is suggested that MPY should include yearly expenditure estimates and the intended source of funding. Post approval of MYP, UMTA would issue a Certificate of Approval to the implementing agency, for a particular project proposed in its MYP, which could be furthered to the Finance Department/concerned Central Government ministry/funding agency for making a request for funds for that particular project.

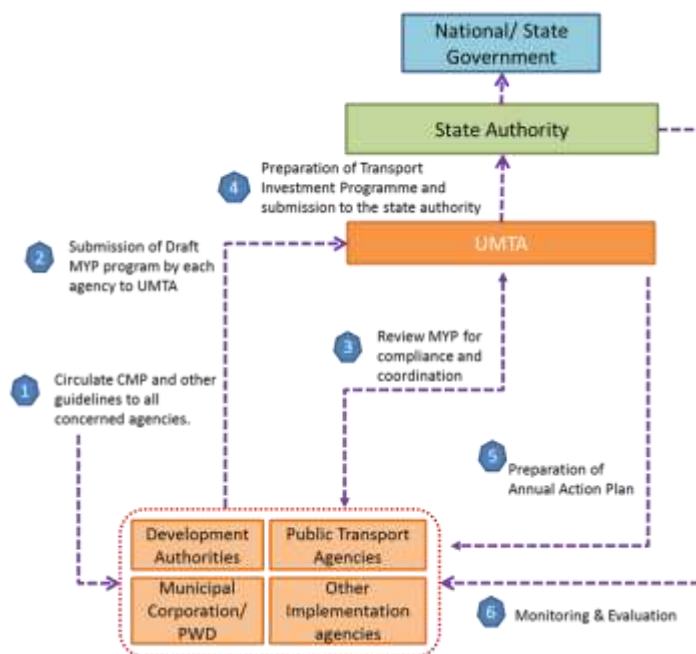
The MYP shall be prepared for a minimum time period of five years and broken into short term (1 to 3 years) and medium term (3 to 5 years) for better monitoring and implementation of various projects. This should be developed in consonance with CMP. It is recommended to be updated every 2 years or as decided by the Governing Board time to time. The MYP should include phasing of projects based on project prioritisation from all the concerned implementing agencies.

Further, once the MYP has been approved, it can be detailed out in the form of annual action plans by the implementing agencies, which will carry the exact roadmap of activities to be performed by that agency during a particular year.

7.5.1 Guidelines and procedures for preparation of Transport Investment Programme

The suggestive process for preparation and approval of MYP is presented in Exhibit 32. An illustrative MYP is given in Exhibit 33. Steps involved in development and finalisation of MYP are provided below.

Exhibit 32 Process flow chart for preparation of Transport Investment Programme



Step 1: Reference to CMP, Alternative Analysis and other guidelines

UMTA shall circulate the finalised CMP and other guidelines to all concerned agencies. The concerned agencies shall refer to these documents and make themselves aware of the objectives and strategies envisaged development of Lucknow’s urban transport system over the planning period.

Step 2: Development of draft MYP by each implementing agency

Each of the concerned agencies shall prepare (by its internal staff or by appointing a consultant) a draft MYP in line with the CMP and submit the same to UMTA for ensuring compliance. The implementing agencies shall draw MYPs to include the following:

- Determining key activities to be undertaken by the implementing agency, to achieve the objectives and strategies of the CMP.

Exhibit 33 Illustration of Multi-Year Programme

Transportation Service	CMP Objective	CMP strategy	AA Outcome	Main Activity	Timelines	Costs
Public Transport	To increase public transport ridership by 20% in the planning period	To develop 100 km of corridor around the city	MRTS is the best option suited for the corridor	Build 25 km of MRTS in 4 phases	2016 Completion of 25km	-
					2017 Completion of 50km	-
					2018 Completion of 75km	-
					2019 Completion of 100km	-
...						
...						

- Determining the year(s) in which each activity proposed to be undertaken by the implementing agency will be carried out, in order of priority. All augmentation of transport network and infrastructure provisions may be worked out for the short term, while policy level implementation may be worked out in the medium term.
- Estimating the current and future costs and financing of the major activities proposed, and predicting scenarios and identifying strategies that will improve the financial sustainability of the MYP. It is crucial that the MYP clearly spells out how much is being spent on what and from what source, and identifies funding gaps and future fund requirements. The costs can be determined by:
 - Estimating the current project costs
 - Predicting future resource requirements
 - Estimating current project financing
 - Predicting future financing levels and patterns over the MYP's time horizon
 - Estimating financing gaps by comparing resource needs with available financing
- The MYP would be accompanied by an Implementation Schedule (refer Annexure V). This Implementation Schedule would include the projected benefits, time frame and manner of implementation of the projects included in the MYP.

Step 3: Review of MYPs for compliance

The primary function of UMTA is to ensure coordinated development of urban transport projects in Lucknow Urban Mobility Area. In this regard, UMTA shall review the MYPs submitted by all implementing agencies with the objective of ensuring that:

- a. The planned developments envisaged in the CMP and other guidelines have been covered by the MYPs;
- b. There is no overlap or gap in achieving the envisaged developments;
- c. The projects finalised under the MYP are within the time and budget frames that have been predicted by the CMP.

UMTA would provide its comments and suggestions to the concerned agencies for revision of the draft MYPs. Once these suggestions have been incorporated, the MYPs shall be finalised for approval by the Governing Board.¹⁴

Step 4: Consolidating the MYPs into a Transport Investment Programme

Once the MYPs have been revised, UMTA would prepare a Transport Investment Programme, consolidating the MYPs of various implementing agencies and submit it to the Government of

¹⁴ All projects with issues pertaining to land requirement shall be referred to the land owning Authority for clearance on land requirement/ acquisition. Hence, the implementing agencies will be responsible for getting clearance on any change in land-use for the projects approved under the Transport Investment Programme. UTA shall be responsible for monitoring the process of land-use change undertaken by the implementation agencies and may time to time facilitate the same as deemed necessary by the Governing board.

Uttar Pradesh via its Nodal Agency for approval.

Step 5: Preparation of annual action plan

Once the Transport Investment Programme has been approved by Government of Uttar Pradesh, UMTA shall break down the consolidated programme into implementing agency-specific programmes, and shall circulate them to all the concerned implementing agencies. The agencies shall then decompose their respective MYPs into an annual action plan for the following year. This process of annual action plan formulation shall be repeated every year for the time horizon of the MYP.

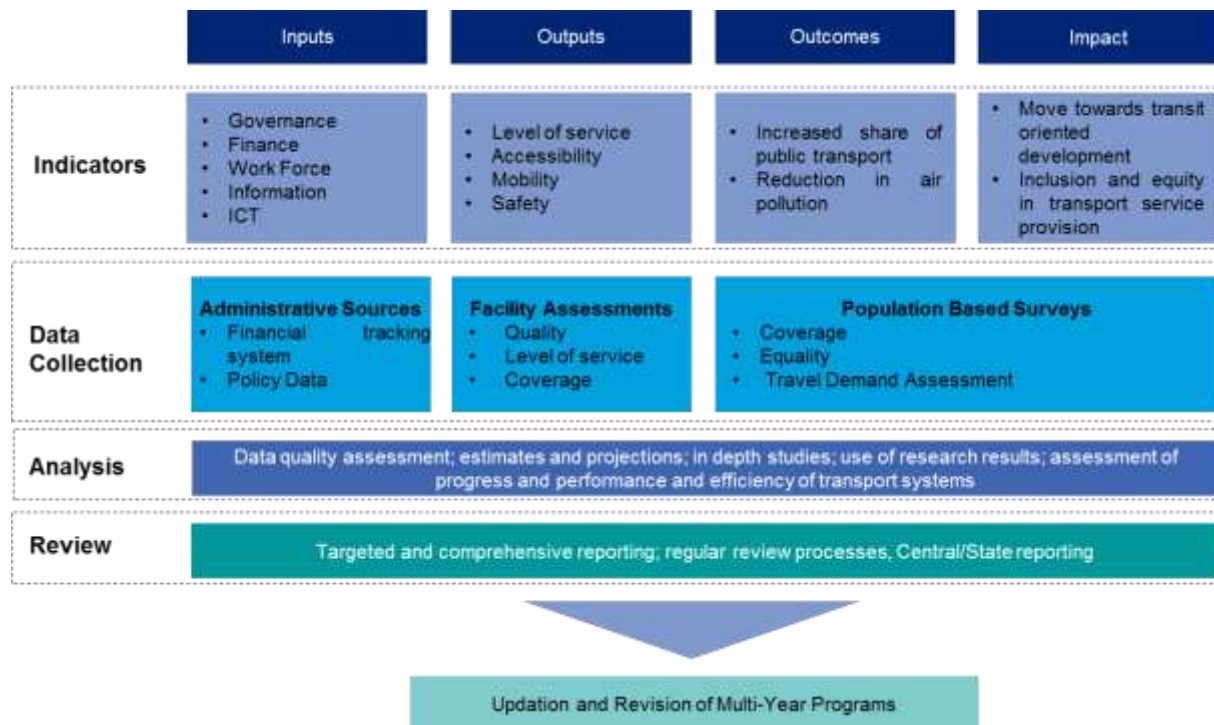
Step 6: Monitoring and evaluation of MYPs

UMTA shall establish a monitoring and evaluation framework to track the progress of implementing agencies towards the activities set out in their MYPs. This process would enable UMTA to include annual and mid-term corrections to MYP strategies, should this tracking demonstrate that milestones and targets are not being achieved. The principles of establishing an effective monitoring and evaluation framework are:

- Ensure selection of specific, measurable, achievable, relevant and time-bound indicators to track performance.
- Plan in advance the data sources for measuring the indicators, and the means by which the data will be verified.
- Describe accurate baselines that will enable tracking of progress.
- Define targets that are realistic and achievable in relation to the baseline data.

Exhibit 34 gives an illustrative monitoring and evaluation framework which UMTA could adopt.

Exhibit 34 Illustration of monitoring and evaluation framework of UMTA



The Authority may also engage consultants as deemed necessary for the purpose of monitoring and auditing processes.

7.6 INTEGRATED FACILITIES

An integrated transport system supports cross- and cross-region journeys by way of new travel opportunities through increased interchange. Planning for integrated facilities aims to ensure that there exists suitable and interconnected transport infrastructure for all transport modes, such as private vehicles, freight, public transport, walking and cycling. To ensure seamless and smooth connectivity of people and goods across the Urban Mobility Area, it is crucial that all transport modes (by way of infrastructure and services) are connected and work together. Integrated service provision results in a seamless journey that is as door-to-door as possible.

Today, most commuters in Indian cities face barriers and discontinuities in seamless travel across an urban area. These discontinuities are sharper for pedestrians, cyclists and public transport users than for car drivers, who can usually find a way around such impediments.

- For pedestrians, barriers include roads that are difficult to cross, lack of footpaths, hostile walking environment, etc.
- For cyclists, barriers may include dangerous intersections leading to safety concerns, high traffic roads without provision of cyclist tracks, etc.
- For public transport users, barriers include services, routes and schedules that do not connect, low frequency of service, absence of end-to-end connectivity, etc.

In planning and development of integrated facilities, UMTA shall keep in view certain measures:

- Integrated transport network means integration among modes as well as within each individual mode. Is this inter and intra-modal integration being achieved?
- How good is the last mile connectivity? Are the services of autos, rickshaws, etc. utilized efficiently, so as to complement the other public transport modes, instead of all modes operating independent of one another?
- How is the walking access to bus/train stations? How can the walking environment be improved?
- How secure are the facilities for cycling to bus and train stations?
- How well do buses connect with one another and with trains in terms of schedules and physical access?
- How does one ensure seamless travel of the commuters in buses or trains and from buses to trains and vice-versa? What procedures (of security frisking, ticketing, etc.) can be streamlined so as to cause minimum discontinuity for commuters?
- Is the public transport system barrier-free to serve passengers with disabilities and is it gender-sensitive?

7.6.1 Guiding principles for Integrated Transport Planning

The guiding principles for integrated transport service planning have been demonstrated in Exhibit 35.

Exhibit 35 Guiding principles for integrated transport planning

Principle	Considerations for UMTA interventions	Potential Outcomes
Providing satisfied commuting experience	<ul style="list-style-type: none"> • Identify ticketing and fare requirements for commuters to introduce integrated ticketing across public transport modes¹⁵ • Offer clear and accessible information to commuters for public transport across modes, operators, routes and schedules • Encourage good pedestrian access to public transport services • Consider the needs of all users of the network 	<ul style="list-style-type: none"> • Increased patronage towards public transport services and facilities
Development of an integrated, seamless public	<ul style="list-style-type: none"> • Plan for a hierarchy of mass, intermediate and local transit services in a network 	<ul style="list-style-type: none"> • The public transport network is effective and easy to understand and navigate

¹⁵ Refer to 'Draft Guidelines – Smart Ticketing', Expert Group on Urban ITS. Access - <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=5783&no=3>

<p>transport network</p>	<p>through terminal and interchange point development</p> <ul style="list-style-type: none"> • Follow consistent timetables and stopping patterns for services • Coordinate convenient transfers between services • Increase network connectivity 	<ul style="list-style-type: none"> • The public transport network considers the needs of different user groups • Changing between public transport modes is as convenient as possible
<p>Plan for rehabilitation of existing assets and infrastructure</p>	<ul style="list-style-type: none"> • Provide services making the best use of existing assets and infrastructure • Plan for future asset and infrastructure procurement and development 	<ul style="list-style-type: none"> • Appropriate distribution of public transport services across the network • Service provision increases network productivity • Public transport services are integrated with future asset and infrastructure improvements
<p>Foster continuous improvement</p>	<ul style="list-style-type: none"> • Undertake periodic reviews to ensure that services continue to reflect demand expectations 	<ul style="list-style-type: none"> • Service planning continues to be efficient and effective
<p>Ensure safety of commuters and prompt accident mitigation</p>	<ul style="list-style-type: none"> • Establish a unified and centralised command and control centre for the Urban Mobility Area, enabling quick incident response¹⁶ • Plan for high quality facilities to ensure commuter safety, comfort and ease of use 	<ul style="list-style-type: none"> • Reduction in fatalities caused during accidents
<p>Ensure integrated traffic management</p>	<p>A centralised and integrated traffic control system should be operated by the implementing agencies in coordination with UMTA. The centralised operation control cell may be responsible for the following activities:</p> <ul style="list-style-type: none"> • Using ITS to streamline traffic signal control, enabling prioritisation of public transport and traffic optimisation • Satellite tracking of vehicles to give real - time passenger information 	<ul style="list-style-type: none"> • Reduced congestion • Reduced energy consumption and traffic emissions • Increased efficiency of the transport system • Improved freight delivery • Enhanced road safety • Reduction in parking congestion

¹⁶ Refer to 'Simplified Guide to Incident Command System for Transport Professionals', U.S. DOT. Access - http://www.ops.fhwa.dot.gov/publications/ics_guide/ics_guide.pdf

	<ul style="list-style-type: none"> • Automatic number-plate recognition and vehicle detection systems • Enabling a visual view of transport system through closed circuit television surveillance¹⁷ 	
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In terms of development of integrated facilities, UMTA’s role shall be to promote, develop and regulate the integration process within Lucknow Urban Mobility Area. Lucknow UMTA shall ensure development, construction, integration, operation and management of integrated and/or standalone transport network facilities and services, that aid and enhance efficiency and service levels of the urban transport system. A case study on London’s integrated ticketing system is discussed briefly in Exhibit 36.

Exhibit 36 Case study- London

London Oyster Card – Integrated ticketing system

Nearly two- thirds of the total rail journeys in United Kingdom either start or end in London. Public transportation in United Kingdom is administered by TfL (Transport for London). TfL introduced a smart card – known as the Oyster card - which could be used in various modes such as London Bus, DLR, Tramlink, London Underground, etc. This project was a public-private partnership operated by TranSys consortium. The system is similar to the smart card system of Delhi Metro Rail Corporation where passengers need to touch the card on a sensor at the beginning and end of the journey.

The Oyster card was set up under a Private Finance Initiative contract between TfL and TranSys and a consortium of suppliers. The £100 million contract was signed in 1998 for a term of 17 years until 2015 at a total cost of £1.1 billion. There is documented evidence that introduction of Oyster cards has increased the number of users of public transport in London. This has positively affected traffic congestion and therefore, journey times, which in turn has reduced CO₂ emissions and pollution levels.

Key outcomes – As of 2012, 7 million cards were regularly used and a total of 57 million journeys are made using Oyster card every week. Around 80% of the total bus and tube travel in London has been estimated to be made through Oyster. In a survey conducted by DoT in 2009, 98% of responses were favourable when it came to the implementation of Oyster system.

Relevance to Indian context – TfL is an authority quite similar to the proposed UMTA and the integration of ticketing as adopted by TfL can be established in Indian context too. Lessons can be taken from other integrated ticketing systems such as Hong Kong, Montreal, etc.

¹⁷ Refer to 'Guidelines for ITS Deployment in Urban Areas', Urban ITS Expert Group, 2013. Access - http://ec.europa.eu/transport/themes/its/road/action_plan/doc/2013-urban-its-expert_group-guidelines-on-traffic-management.pdf

7.7 REGULATION

It has been suggested that for UMTA, there is a potential recommendatory role to be played in licensing and fare fixation functions for public transport vehicles operating within its jurisdiction as well as in regulating fees and charges for other urban transport facilities and services.

In this regard, the suggested functions of UMTA shall include:

- Contract public transport services so as to provide mobility and integrated public transport;
- Assist the licensing authority in issuance of licences/ permits;
- Monitor and advise on fares/fees/charges for roads, public transport, parking and other public transport facilities and services;
- Enforce regulations for which UMTA is responsible.

Guidelines for carrying out these functions are provided in the following sub-sections.

7.7.1 Options for licensing function for public transport services

As an important part of the contracting function of UMTA, it shall also be enabled to provide inputs on issuance of licenses for the operation of public transport vehicles. For achieving this, the licensing authority may issue the licenses /permits only in consultation with UMTA.

This function is crucial since UMTA shall exercise some degree of decision making power in regulating the number of public transport vehicles operating within the Urban Mobility Area and their routes and frequencies. This would involve licensing activities for existing and new routes.

7.7.2 Options for monitoring and regulating fees and charges

Fares influence the patronage of public transport services and therefore, adjustment of public transport fares can be used to encourage or discourage use of a particular mode of travel. Setting of fares can, therefore, be part of a wider multi-modal travel demand management strategy for the Urban Mobility Area. Such a strategy would operate best with a single agency in control of fixing all relevant fares, fees and charges. Therefore, UMTA's role shall be to make recommendations to various fare- setting agencies, within the framework of the overall travel demand management strategy.

It has been suggested that UMTA shall be responsible for the following functions within the ambit of monitoring, fixing and regulating fees/charges in the Urban Mobility Area:

- Make suggestions regarding all relevant fares/fees/charges within the Urban Mobility Area – This particularly applies to bus transport and fare fixation for bus transport becomes part of a wider reform of public transport planning, contracting and funding. All these aspects need to be placed under the control of a single agency for effective service effectively.
- Make suggestions on road tolling charges to relevant agencies within the Urban Mobility Area – This shall include advising the National Highways Authority of India (NHAI) or the state road development agencies for fixing the tolling charges within the overall travel demand management strategy.

- Make suggestions regarding the fare structure for sub-urban rail services – This shall include advising the Indian Railway for fixing the sub-urban railway charges within the overall travel demand management strategy.
- Make suggestions on matters related to the amount of subsidy required for public transport services –UMTA shall provide such advice on the basis of the level of revenue it has been able to recover from various sources of resource mobilisation as discussed in the UTF operations document. In the event, the resources of UMTA fall short of meeting the planned expenditure, it shall communicate to the Central Government and Government of Uttar Pradesh on the subsidy shortfalls and the means of meeting them.

UMTA shall interact with all relevant agencies such as public transport operators and regulatory agencies such as Transport Department for ensuring that monitoring and regulatory functions are undertaken properly.

7.8 RESEARCH STUDIES AND AWARENESS

One of the main functions of UMTA is conducting research studies and spreading awareness regarding urban transport. Research and development form the core to a successful, well-strategized and updated transportation network. Hence, various types of transport policies, guidelines and studies need to be worked out by UMTA.

These functions shall be carried out by the Policy and Research Division of UMTA, which shall be majorly responsible for research and study for establishing an effective transport system within the Urban Mobility Area.

In this regard, UMTA's functions are suggested to include the following:

- **Maintain records relating to urban transport, including details of projects, services, funding and public transport safety:** To manage its affairs, UMTA will need to maintain database of information on activities for which it is responsible. Depending on the functions assigned to UMTA, the database shall contain details of projects, funding, public transport routes and services, licences, etc.
- **Develop and disseminate service level performance indicators for urban transport:** UMTA needs to develop and measure service level performance indicators for urban transport within its jurisdiction. These indicators shall be in line with the service level benchmarks published by MoUD. The Authority may regulate and enforce technical and performance standards on all strategic and operational matters that have a direct effect on the levels of service provided to the users of urban transport.
- **Monitor and advise on public transport safety:** UMTA shall monitor public transport safety on these services and take action to improve transport safety where problems arise. In addition, UMTA shall coordinate with the Traffic Police to help ensure improved safety of public transport users travelling to or from a public transport service.
- **Conduct research studies and awareness about good practices in urban transport:** For UMTA to be successful, it needs to conduct research and studies to take informed decisions. These studies may be carried out by consultants. UMTA may also raise awareness about

good practices in various aspects of urban transport. This could include providing training opportunities and support to professionals from other agencies.

Guidelines for carrying out these functions have been highlighted below.

7.8.1 Guidelines for maintenance of database

UMTA shall maintain a database with information on activities for which it is responsible. The research function of UMTA is shown in Exhibit 37. Depending on the functions assigned to it, such database shall contain the following:

- Details of projects;
- Details of existing urban transport infrastructure;
- Planned development by different agencies in consonance with MYPs;
- Fare structures;
- Funding;
- Public transport routes and services;
- Licences,;
- System performance including safety.

The task of maintenance of database shall be entrusted to the information technology team of the Corporate Service Division.

The maintenance of transport database shall help in the following:

- Facilitate sharing of data among various agencies
- Facilitate coordination of information/ reports across agencies
- Minimise duplication of data collection
- Map all transport developments for planning purposes
- Facilitate selected access of information/ reports to the general public
- Provision of data to the Policy and Research Division of UMTA

Exhibit 37 Research function within UMTA

UMTA Research Functions		
Maintenance of Database	Public Transport safety guidelines	Performance Indicators
<ul style="list-style-type: none"> • Transport projects • Existing urban transport infrastructure • Public transport routes and services • Fare Structures and Licenses 	<ul style="list-style-type: none"> • Quality of infrastructure • Driver training, testing and licensing • Registration, testing/certification of vehicles • Road accidents • Enforcement of traffic rules 	<ul style="list-style-type: none"> • Develop measures and publish performance indicators • Conduct workshops for awareness about best practices

The broad outline of data which is recommended to be collected is provided below:

- Demand for urban transport:
 - Traffic operations
 - Performance of major routes
 - Passenger and freight data
 - Vehicle population for public, private as well as para-transit system
- Supply of urban transport:
 - Capacity trends
 - Fleet data
 - Road and traffic infrastructure facilities and provisions
- Safety statistics and Financial results,
- Data on fuel consumed by public, private and para-transit system
- Information on road infrastructure, road conditions; updated information on all public transport modes, routes, frequency and timings;
- Non-motorised transport facilities;
- Mobility indicators;
- Modal share/ split of transport vehicles;
- Incidents of accidents, fatalities;

- Service level benchmarks; and
- Other benchmarking data.

Exhibit 37 highlights the research functions of UMTA.

7.8.2 Guidelines for public transport safety

One of the key functions of UMTA would be to monitor public transportation safety issues in coordination with the present implementing agencies. Research studies to be conducted by UMTA for ensuring safety of passengers shall, inter-alia, include:

- Quality of infrastructure
- Driver training, testing and licensing
- Registration, testing and certification of vehicles
- Road accidents data collection and analysis
- Enforcement of traffic rules and regulations
- Institutional arrangements and accountability

7.8.3 Key performance indicators

The authority needs to establish the achievement of specific objectives in the overall development of urban transport in Lucknow Urban Mobility Area. For ensuring efficient operation of public transport services, development of measurable and relevant performance indicators is crucial. UMTA would develop and measure service level performance indicators for urban transport within its jurisdiction. These indicators shall be in line with the service level benchmarks published by MoUD.

7.8.4 Research and studies

Conducting research studies shall be one of the prime functions of UMTA and shall be undertaken by the Policy and Research Division. UMTA shall be responsible for developing innovative and unique transport solutions for Lucknow Urban Mobility Area. This division shall also be responsible for the preparation of policies and guidelines for sustainable urban transport specific to the context of Lucknow Urban Mobility Area.

7.8.5 Awareness about good practices

In order to spread awareness about good practices, UMTA shall be responsible for conducting workshops on good practices implemented at national as well as international levels.

7.9 CONCLUSION

This chapter outlined the guidelines for carrying out various functions of UMTA, including providing input in policy, standards and guidelines, preparation of CMP and alternative analysis, Transport Investment Programme preparation, regulation, research studies and awareness. The next chapter discusses the broad procedures and guidelines to be followed to carry out day-to-day activities of the Governing Board and Secretariat.

8. ADMINISTRATIVE AND RECRUITMENT PROCEDURES

8.1 INTRODUCTION

This chapter describes broad procedures and guidelines to be followed to carry out day-to-day activities of the Governing Board and Secretariat. The policies and procedures relating to Administration and Human Resource matters of UMTA shall comply with all the legislative provisions of the UMTA Act (refer to Annexure I). The procedures relating to procurement outline the steps to be followed for procurement of services, works and goods. The procedures relating to financial management are provided in the UTF operations document and these include funding mechanism, accounting procedures and audit arrangements, etc. The procedures provided in this chapter are only for the purpose of providing broad guidelines. It is suggested that UMTA adopts prevailing policies and procedures as laid down by the Government of Uttar Pradesh.

8.2 ADMINISTRATIVE AND OFFICE MANAGEMENT PROCEDURES

The procedures relating to administration and office management to be followed for performing day-to-day activities of the Governing Board and Secretariat are provided in this section. The policies and procedures on these matters shall comply with the legislative provisions of the UMTA Act.

8.2.1 Transparency Policy

A high level of transparency shall be the key policy of the Authority. The Authority shall maintain exemplary standards in all areas of work and shall strive to be transparent in its procedures and policies. The Authority shall, therefore, abide by the following principles and detailed procedures while taking all decisions and performing all activities:

- **Clarity of roles, responsibilities and objectives:**
 - The ultimate objective and institutional framework of the Authority shall be clearly defined in the UMTA Act or the regulations framed under it
 - The institutional relationships between the Authority and other agencies shall be clearly defined in performance agreements between these bodies
 - The roles and policies of the Authority with regard to performance of each of its functions shall be made clear in published documents
- **Open process for formulating policies and reporting policy decisions:**
 - The framework, instruments and any targets that are used to pursue the objectives of the Authority's policies shall be publicly disclosed and explained
 - Information on the composition, structure and functions of the Authority shall be published
 - Changes to the Authority's policies shall be publicly announced and explained in a timely manner
 - The Authority shall issue periodic public statements on progress towards achieving its objectives

- **Transparent and fair procurement:**
 - The procedures used to publicise tenders shall be published by the Authority, together with any standard forms to be used and details of the evaluation criteria that will be used to identify the successful tenderer
 - Contract award notices shall, as a minimum, include the description of the nature of the goods or services, the name and address of the successful tenderer, the total value of the contract, the values of the highest and lowest offers received and the term of the contract where appropriate
 - Contract award notices shall be posted on the Authority's website within seven days of the contract award and be retained on the website for a period of at least six months
 - The Authority shall be prepared to debrief unsuccessful tenderers in relation to a contract award
- **Public availability of information:**
 - Presentations and releases from the Authority shall meet the standards related to coverage, periodicity, timeliness and access, set out in the Authority's communications strategy
 - The Authority shall publish its plan and annual operating accounts at the earliest opportunity each year
 - The Authority shall establish and maintain public information disclosure services, including a website, the Authority's annual report and other media set out in its communications strategy
- **Accountability and assurances of integrity:**
 - Senior officials and members of the Authority shall be available to appear before a designated public authority to report on the conduct of the Board's policies, explain the Authority's objectives and describe the Authority's progress
 - Information on expenses and revenues in operating the Authority shall be published annually
 - Standards for the conduct of personal financial affairs of officials and members of the Authority and rules to prevent exploitation of conflicts of interest, including any general fiduciary obligation, shall be publicly disclosed

8.2.2 Board Procedures

This section specifies procedures relating to appointment and terms of service of Board members, responsibilities and meetings of the Board members and the Authority's committees, etc. All Secretariat staff are required to comply with the information concerning Board procedures and the same shall be maintained up to date at all times.

General provisions in the Act:

Members of the Board shall be nominated by names and /or designations. The names and/or designations of all members of the Board as first constituted and every change in membership thereafter shall be published in the Official Gazette.

A member of the Board, other than an ex-officio member, shall hold office for a period of three years from the date of his or her appointment and shall be eligible for re-appointment at the expiration of that period.

In case of any vacancy arising in the Board on account of death, resignation or otherwise, the same shall be filled in as soon as possible in accordance with criteria set out in the UMTA Act. No act or proceedings of the Board shall be illegal, nor can any question relating thereto be raised, merely on the ground of existence of a vacancy in the Board.

Resignation, removal, or suspension of Chairperson or other members

The Chairperson or any other member may, by a written notice addressed to the Government of Uttar Pradesh, resign his/her office, provided that the Chairperson or the member shall, unless he/she is permitted by the Government of Uttar Pradesh to relinquish his/her office sooner, continue to hold office until the expiry of three months from the date of receipt of such notice or until a person duly appointed as his/her successor enters upon his/her office or until the expiry of his/her term of office, whichever is the earliest. The Government of Uttar Pradesh may, by order, remove the Chairperson or any other member appointed or nominated by the Government of Uttar Pradesh from his/her office if such Chairperson:

- a) is, or at any time has been, adjudged as an insolvent; or
- b) has been convicted of an offence which, in the opinion of the Government of Uttar Pradesh, involves moral turpitude; or
- c) has acquired such financial or other interest as is likely to affect prejudicially his/her functions as a member; or
- d) has so abused his position as to render his/her continuance in office prejudicial to the public interest; or
- e) has become physically or mentally incapable of acting as a member.

The Central Government may, by order, remove the member appointed or nominated by it from his/her office if such member:

- a) is, or at any time has been, adjudged as an insolvent; or
- b) has been convicted of an offence which, in the opinion of the Central Government, involves moral turpitude; or
- c) has acquired such financial or other interest as is likely to affect prejudicially his functions as a member; or
- d) has so abused his position as to render his continuance in office prejudicial to the public interest; or
- e) has become physically or mentally incapable of acting as a member.

If a casual vacancy occurs in the office of a nominated member, either by reason of death, resignation, removal or otherwise, such vacancy shall be filled up, as soon as may be, by the Government and such nominated member will hold office only for the remainder of the term for which the person whose place he/she fills would have been a nominated member.

8.2.3 Committees constituted by the Authority (for specific subject matters)

It is suggested that UMTA shall time to time appoint committees consisting of such members or experts whose assistance or advice may be required for any subject relating to the purposes of the Authority.

Such appointed members/experts shall be entitled to receive allowances or fees as may be determined by the Authority. The committee members shall conform to any instructions given by the Authority and the Authority may at any time alter the constitution of any committee so appointed or rescind any such appointment. The Authority shall nominate any one of the

members as the Chairperson of every such committee. The procedure to be followed by the committees and all other matters relating to the committees shall be specified by regulations framed under the UMTA Act.

8.2.4 Meetings Procedures

Board Meetings:

1. The Authority shall meet at such times and places and shall observe such procedure in regard to the transaction of business at its meetings (including the quorum at its meetings) as it deems appropriate.
2. The Chairperson shall preside over the meetings of the Authority.
3. If for any reason the Chairperson is unable to attend any meeting of the Authority, the senior most member as prescribed by the regulations framed under the UMTA Act, present at the meeting, shall preside over the meeting.
4. All issues which come before any meeting of the Authority shall be resolved through consensus, and in case no consensus is reached, the decisions would be taken by a majority of votes of the members present and voting and only in the event of equality of votes, the Chairperson or, in his/her absence, the person presiding, shall have the right to cast his/her vote.
5. Every member who in any way, whether directly, indirectly or personally, has a conflict of interest relating to a matter to be decided at the meeting, shall disclose the nature of his/her interest and after such disclosure, the concerned member shall not attend the part of the meeting that relates to that subject.
6. The quorum required for transacting any business by the Authority at its meeting shall be at least half of the Board members who shall be present in all the meetings of the Authority. The presence of UMTA representatives shall be mandatory for approval of the CMP and MYPs. If required, any other experts may be requested to attend such meetings.
7. All orders and decisions of the Authority shall be authenticated by the CEO or any other officer of the Authority duly authorized by the Chairperson.

General Principles of Meetings:

The general principles of meetings held amongst the staff members of the Authority and also with people outside the Authority shall be followed. Few such guidelines are:

1. The meetings of the Authority shall, after consent of the Board / CEO, be convened by the CEO / Director by written invitation to each of the members at least seven days before the date of the meeting along with the agenda of the meeting.
2. The chairperson shall preside such meetings.
3. If for any reason the chairperson is unable to attend any meeting of the Authority, the senior most member as prescribed by the regulations framed under the UMTA Act, present at the meeting, shall preside over the meeting.
4. The meetings of the Governing Board shall be held at least once in three months at such place and time as may be determined by the CEO.
5. The meetings of the Authority shall be regulated in accordance with the provisions of the UMTA Act and rules framed under it, and the operational policies and procedures.
6. Meetings of the Authority shall be suspended or terminated if the number of members present becomes less than the quorum.

7. No act or proceeding of the Authority or any of its committees shall be invalid merely by reason of:
 - (a) Any vacancy therein or any defect in the constitution thereof, or
 - (b) Any irregularity in its procedure not affecting the merit of the case.
8. The members of the Authority shall, on an honorary basis, discharge their obligations as specified under the UMTA Act and the rules framed under it, and the expenses incurred in connection with such discharge of obligations and conduct of meetings shall form part of the administrative expenses of the Authority.
9. The CEO shall, at the written request of not less than four members of the Authority, convene a special meeting of the Authority to transact any extraordinary business on a date specified in the request. A written notice shall be sent to the members at least three days prior to the date of the meeting.

Frequency of meetings:

The Authority shall ordinarily meet for the conduct of business at such times and places as the CEO may time to time decide, but not less than once every three months. The CEO shall preside over all meetings of the Authority. In the absence of the CEO, Director - Planning or Director – Finance shall preside and in the absence of both, any of the other Directors may preside. Where none of them is present, a meeting of the Authority shall not be held.

Annual General Meetings:

The CEO shall, in each financial year, call an Annual General Meeting (AGM) of the Authority, for the consideration of, amongst other matters, the Annual Report. The AGM shall be held within six months after the closure of each financial year. It shall be open to the public who shall be given adequate notice of the meeting and of the salient points from the Annual Report through the media. Specific invitations of the AGM shall be sent to the organisations and agencies listed below (as applicable):

- Urban Development Department
- Transport Department
- Public Transport Operators (City Bus Transport, Metro Rail, Mono Rail, etc.)
- Lucknow Development Authority
- Lucknow Nagar Nigam
- Lucknow Traffic Police
- Any other agency as considered suitable by the Authority

The AGM shall be chaired by the Chairperson of the Authority. Conduct of the AGM with regard to any standing orders, procedures, etc. shall be as the Authority may determine time to time except that such orders, procedures, etc. which are incompatible with the purpose and intent of the AGM shall be null and void.

Minutes of meetings:

Minutes of all meetings of the Authority will be documented and distributed, within five working days of the relevant meeting. It is the responsibility of the Corporate Services Division to ensure that such minutes are produced in a timely manner.

Minutes shall be distributed for approval to all members who attended the meeting, or in the case of Board meetings, all members of the Board, regardless of attendance.

Official minutes of every meeting shall include:

- The agenda of meeting;
- The name of the meeting, date and location;
- A list of those present, with their designations;
- A list of those for whom written communication of absence had been received;
- In the case of a special meeting of the Board, the official reasons for calling the meeting;
- Details of all decisions taken, together with a record of the results of any votes taken during the meeting;
- A record of all actions agreed upon, together with the name of the individual or organisation tasked.

Meetings, or items of meetings, dealing with the remuneration and performance of the staff members, shall be noted separately and such minutes shall be made available only to the members present at the meeting.

Finalised minutes of a meeting shall be formally adopted at the next meeting of the subject committee or the Authority and duly signed as a true and accurate record of the meeting, by the person who chaired the meeting. All minutes of the Authority and committee meetings shall be retained in the central filing system of the Authority for a minimum period of five years.

8.3 RECRUITMENT PROCEDURES AND SERVICE CONDITIONS

This section records the broad policies and procedures for appointments, conditions of service, training, development and performance assessment for the Secretariat staff. The process for recruitment, appointments and the conditions of service needs to be transparent and expectations from staff and the process for performance assessment need to be clearly defined.

8.3.1 Recruitment Responsibilities

The Governing Board shall be responsible for approval of recruitment policies and procedures, conditions of service, and policies for staff training, development and performance assessment, etc. The CEO, with the help of the consultant appointed for handholding support, will be responsible for appointment of all staff proposed for each of the divisions. For any future recruitment, the responsibility can be assigned as follows:

- Board – approval of recruitment policies and procedures, conditions of service, and policies for staff training, development and performance assessment
- CEO – appointment of all staff and overview of performance assessment
- Director - Corporate Services Division– management of recruitment, staff training, development and performance assessment processes
- General Manager - Administration – maintenance of position descriptions and staff records.

8.3.2 Recruitment Policy

The process for recruitment, appointments and the conditions of service needs to be transparent. Some of the key policies to be followed during the recruitment process may be as follows:

- Select the most qualified candidate for each position based on job-related criteria. The qualification criteria for each of the position are provided in Annexure IV.

- Encourage the promotion and development of current employees - internal candidates will receive first priority when their appropriate qualifications, skills and experience are equal to external candidates
- Use recruitment and selection practices that reflect and support the requirements set out in the UMTA Act
- Use a standardised selection process. The selection process already followed in the state or from similar institutions can be referred.
- Use employment terms and conditions compatible with the prevalent employment law
- Avoid employment in the same division or section of employees who are related - the final discretionary power will be with the CEO, and Director - Corporate Services Division.
- Employ temporary / contractual staff to cover seasonal demand, if required.

8.3.3 Position Descriptions and Person Specifications

Before the start of the recruitment process for each division, the CEO shall ensure that a detailed position description has been prepared. Position descriptions shall include details of the main tasks assigned to a position, the responsibilities of the position, management structure relative to the position and the staff grade for the position. Person specifications will set out the minimum level of education, technical skills and experience that will be expected of the successful candidate.

The description of positions provided in Annexure VII can be used as reference. For future recruitment, the CEO shall review and revise the position description for all positions at least every three years. Any proposed changes shall be discussed with the incumbent position holder, before they are implemented.

8.3.4 Recruitment process

Recruitment of the Secretariat staff shall be undertaken on the basis of a transparent public competition. The CEO shall ensure that all vacant positions are advertised in the print media in local language, English and Hindi at the beginning of the recruitment period. Recruitment shall, as far as possible, follow the following timescales:

Week 1 – finalise job and person descriptions

Week 2 – place advertisements

Week 6 – deadline for receiving applications

Week 8 – invitations for interviews

Week 10 – interviews and selection of preferred candidate

Week 14 – preferred candidate starts work.

Screening of applicants:

The CEO, in consultation with the consultant providing handholding support, shall determine which applications shall be considered for further processing. Applicants may be contacted for clarification of details. Selection of the shortlisted applicants shall be based on compatibility with the position description and person specification for the position. Current knowledge, skills, experience and competence as well as the potential to be developed, shall be taken into consideration.

Applicant Assessment:

Formal applicant assessments shall be held for all recruitment. The location of all assessments shall be the office of UMTA. The cost of transportation and subsistence for an applicant to attend an assessment is to be met by the applicant.

For senior positions such as Director, the assessment panel shall include the CEO and at least 3 Board members (a selection committee of the Board can also be established). For other positions, the assessment panel shall include the CEO, the division head and any one Board member.

Applicant assessments shall comply with the following:

- Minimum requirements and selection standards shall be based on the position description and person specification for the position.
- Current knowledge, skills, experience and competencies as well as the potential to be developed, shall be taken into consideration.
- The applicant's performance to date, personality, interpersonal style and motivation shall also be considered in selecting the most suitable candidate.
- Applicants for management positions may be required to undergo psychometric testing for the purpose of determining suitability for the position.
- The privacy of candidates will be protected and no information of a personal nature will be required or made known for reasons other than are necessary for the selection process.

Once the preferred applicant has been selected, the referrals as provided by the applicant on the application for employment shall be contacted to confirm the details supplied by the applicant, including the applicant's performance, personality, interpersonal style and motivation.

The results of all applicant assessments, together with a recommendation of appointment, shall be reported to the CEO for approval. For senior positions, the applicant assessment results and the recommendation of appointment shall be reported to the committee of the Board responsible for staffing issues.

Appointment:

The following steps shall be completed before an announcement is made about the successful applicant:

- All short-listed applicants should have been interviewed.
- All unsuccessful shortlisted applicants should have been informed that they were unsuccessful.
- All the necessary documentation and authorisation should have been obtained by the CEO, including:
 - Application for employment
 - Health questionnaire
 - Identity document or passport
 - Highest educational certificate
 - Record of previous employment – service book
 - Personal data
 - Marriage certificate, if applicable
 - If the candidate was unemployed at times, an affidavit regarding his/her whereabouts during the relevant period shall be produced.

The consultant providing handholding support shall assist the CEO in preparing all the necessary documents such as letter of appointment and the employment contract, etc.

The CEO shall sign the letter of appointment in all cases. The offer of employment is subject to the applicant complying with the appointment requirements and the submission of satisfactory certificates in respect of previous employment and qualifications.

8.3.5 Orientation and Induction

The purpose of orientation and induction is to introduce a new employee to all aspects of his/her job functions and other functions that are related, and to provide knowledge and understanding of the organisation as a whole. It also ensures that new employees are introduced to their colleagues and superiors. This enables them to obtain the necessary support and resources to perform their jobs effectively. The induction process shall cover all aspects necessary to assist new employees in becoming productive as soon as possible.

All new staff members will be required to attend a one-day Orientation and Induction Course within the first two months of joining the Authority. The consultant appointed for handholding assistance will be responsible for providing support in organising induction programmes for the newly recruited UMTA staff members. The induction programme shall cover objectives and rationale, functions, powers of UMTA. The consultant shall also assist in providing trainings on procedures for day-to-day functioning of UMTA.

8.3.6 Training and Development

At the beginning of employment and every year thereafter, the relevant member of the management team, the staff member and his/her direct manager will complete an agreed upon detailed training and professional development programme for the staff member.

Progress with respect to completing the agreed upon training and development programme will be part of the performance review and monitoring for all staff. The training and development programme shall be reviewed and updated as part of every performance review.

8.3.7 Performance Monitoring and Review

At the commencement of employment and every year thereafter, the staff member and his/her direct manager will complete the standard performance planning and review form with an agreed set of performance targets. This form will be the basis of performance monitoring and review.

The performance and training and development of all staff shall be continuously monitored by the relevant member of the management team and the staff member's direct manager.

At least once every year, the relevant member of the management team and the staff member's direct manager shall hold a formal performance review with each staff member to discuss progress and performance during the period since the previous review.

Within ten working days following each review, the assessment shall be completed and signed by both the staff member and direct manager. The CEO shall consider and sign all assessment forms before they are lodged by the Administration and Human Resource teams on the staff member's personnel file.

8.3.8 Performance Reward

The staff's performance may also be the basis of a performance reward for the achievement of specific pre-determined objectives that support the achievement of key objectives of the

Authority. Any performance reward scheme, including the particular objectives to be achieved, is subject to approval by the CEO and the Board of Directors.

8.4 PROCUREMENT PROCEDURES

This section highlights the essential information and brief step-by-step procedures for procurement of goods, works and services by UMTA to be used for procurement of its various activities. The procurement methods, tender documents and contracts to be used by the UMTA secretariat shall be agreed upon with the Board. Procurement of goods, services and works in the Urban Mobility Area will typically be guided by the procurement rules prevailing in Uttar Pradesh. The purpose of this section is to provide guidance about procurement procedures that may be applicable to UMTA. The objective is to establish an open, transparent and competitive procurement system to bring out efficiency, economy and a fair opportunity for participation by all potential contractors, suppliers and consultants.

This section is intended to guide UMTA in its procurement activities. It also intends to help in understanding the procurement processes and to achieve uniformity in procurement processes followed. The rights and obligations of the purchaser and the contractor of goods/works/services will be governed by the tender documents and by the contracts signed by the purchaser with the contractor and not by the guidelines stated in this section.

8.4.1 Procurement Policy

The procurement policy of UMTA shall ensure:

- **Transparency, fairness and fraud prevention** – This is important to ensure accountability and proper utilization of funds
- **Equal opportunity** – This ensures that the suppliers/sellers have equal opportunity to compete
- **Economy and Efficiency** – This means that goods, works and services are to be procured at their true worth
- **Effectiveness** – This means that goods, works and services procured will help to achieve project goals and objectives

8.4.2 Procurement Planning

Effective procurement planning is one of the first crucial steps required for the procurement process. Each division of UMTA shall prepare a procurement plan for 5 years, for undertaking procurement of different types of goods, works and services. There shall also be a provision for annual review of the plan for making modifications, if any.

- The procurement plan covering equipment, goods, vehicles and consultancy services and resource support shall be prepared for each division of UMTA for first year and on a tentative basis for the subsequent years.
- Method of purchase shall primarily be based on the value of the contract (or as applicable). Other relevant factors are urgency of the demand, type of goods/works/services and availability of different sources of supply, etc.
- Limit of value per contract (or tender as applicable) applicable to the particular procurement procedure shall be strictly adhered to.
- It shall be ensured that the procurement is based strictly on actual need.

A team of technical experts is recommended to be formed to carry out the procurement process. UMTA may also appoint an independent monitoring consultant to ensure quality and process oversight.

8.4.3 Procurement of Services/Hiring of Consultant

Some aspects of UMTA's activities, such as UTF management, accounting, information technology and communications can be out-sourced to service providers. Consultants shall be employed for distinct activities such as preparation of the CMP, development of standards and guidelines, review of proposals and audit of implementation, preparation of contracts, preparation and delivery of awareness campaigns and research. These types of services may be procured using prevailing procurement guidelines in Uttar Pradesh. The essential information and brief step-by-step procedures for procurement of services are given below:

- Establish the need for the assignment and outsourcing the services
- Preparation of the Terms of Reference (TOR)
- Preparation of cost estimates and the budget
- Deciding the contracting strategy
- Advertising (for shortlisting of the firms when the purchaser has no knowledge about the firms who shall take up the assignment)
- Preparation of the shortlist of consultants
- Preparation and issue of RFP to shortlisted consultants containing
 - Letter of Invitation (LOI)
 - Information to Consultants Standard form of Technical and Financial proposals.
 - Terms of Reference(TOR)
 - Standard Form of contract
- Receipt of proposals
- Opening and evaluation of technical proposals
- Opening and evaluation of financial proposals, and combined evaluation of both technical and financial proposals.
- Negotiations and award of the contract to the selected firm

Preparation of the Terms of Reference (TOR):

The Terms of Reference shall include:

- A precise statement of objectives
- An outline of the tasks to be carried out
- A schedule for completion of tasks
- The support/inputs provided by the client
- The final outputs that will be required of the Consultant
- Composition of Review Committee to monitor the Consultant's works
- Review of the Progress Reports required from Consultant
- Review of the draft report

Preparation of cost estimates and the budget:

The cost estimates or budget shall be based on the assessment of the resources needed to carry out the assignment, staff time, logistical support and physical inputs (for example, vehicles, office space and equipment). Costs shall be divided into three broad categories;

- Fee or remuneration;
- Reimbursable costs; and
- Miscellaneous expenses.

Deciding contracting strategy:

Before starting the tendering exercise, it is essential to agree on contract strategy viz. going for lump-sum or time based contract, individual vs. firm, advertising vs. internal shortlisting, terms of payment, etc.

Advertising:

In case a shortlist of 6 consultants cannot be drawn by the purchaser based on its own knowledge or from similar empanelment done by the Government of India, advertising through newspapers is the right way to compile the shortlist. The advertising may be considered in regional as well as national newspapers.

Shortlisting of consultants:

The Expression of Interest received shall be evaluated to arrive at a shortlist of the consultants. In preparation of the shortlist, first consideration shall be given to those firms which possess the relevant qualifications. The shortlist may comprise six firms.

Contract and RFP:

(A) Various types of contracts are as under:

- **Lump Sum** – These contracts are used for assignments in which the content and the duration of the work is clearly defined. Payment is made upon delivery of outputs.
- **Time Based** - These contracts are used for assignments in which it is difficult to define the scope and the duration of the work to be performed. Payment is based on agreed hourly, daily, weekly or monthly rate, plus reimbursable expenses using actual expenses or agreed-upon unit prices. This type of contract provides for a maximum total payable amount that includes a contingency for unforeseen work and duration, price adjustments, etc.
- Percent contracts relate to the fee paid to the consultant based upon the estimated or actual project cost or the cost of the goods to be procured or inspected. Percentage is established based upon market norm or standard practice in the industry.

(B) The RFP shall include:

- A Letter of Invitation (LOI), which will include evaluation criteria
- Information to Consultants – Standard Form of Technical and Financial Proposals.
- Terms of Reference
- Standard Form of contract

Opening and Evaluation of Proposals:

The technical proposals are to be opened publicly and evaluated based on the evaluation criteria given in the RFP document. The financial proposals of only those bidders who secure minimum qualifying marks shall be opened.

Negotiations and Signing of Contract:

The firm obtaining the highest total score (only based on quality in case of QBS and based on cost and quality in case of QCBS) shall be invited for negotiations and discussions held with them in accordance with Government of Uttar Pradesh guidelines. No penalties are imposed on the consultants, be it a firm or individual, for unsatisfactory performance or delay in completion of the assignment/ services in the agreed time frame. It is hence suggested to do the performance evaluation of the consultant on completion of each assignment and keep the same in view while short-listing them for any future assignment.

Single Source Selection:

The firm for single source may be appropriate only if it presents a clear advantage over competition and on account of the following reasons:

- For tasks that represent a natural continuation of previous work carried out by the firm.
- Where a rapid selection is essential (emergency operation).
- For very small assignments (in accordance with the agreed threshold); or
- When only one firm is qualified or has experience of exceptional worth for the assignment.

Individual Consultants:

Each contract for individual consultants is expected to cost below a certain limit. The limit shall be decided in consultation with the Governing Board or prevailing guidelines of the Government of Uttar Pradesh. For hiring of individuals, it is necessary to finalise the job description, qualifications and experience required and terms of engagement. Thereafter an advertisement (if the assignment is complex) may be published in national/ regional newspapers indicating the above details.

The applications received shall be scrutinized and ranking shall be prepared. Thereafter the top-ranked individual shall be invited for interview/ discussions and would be offered the assignment.

Least Cost Selection:

This method is more appropriate for selecting consultants for assignments of a standard or routine nature (audits, engineering design of non-complex works and so forth) where well-established practices and standards exist. Under this method, “minimum” qualifying marks for the “quality” are established. Proposals, to be submitted in two envelopes, are invited from a shortlist. Technical proposals are opened first and evaluated. Those securing less than the minimum qualifying marks are rejected, and the financial proposals of the rest are opened in public. The firm with the lowest price shall then be selected. Under this method, the minimum qualifying marks shall be established, understanding that all proposals above the minimum compete only on “cost”. The minimum qualifying marks shall be stated in the RFP.

8.4.4 Procurement of Works

Preparation of Tender Documents

After preparation of the detailed project report, the tender documents may be prepared by the respective division based on the PWD manual and tendering process approved by the Board.

Call of Tenders and Award of Work

The methods of calling tenders may be either through the Single Bid System or through the Two Bid System. The various methods for calling tender documents are:

- Single Bid System: The single bid system shall be adopted where it is feasible to work out the schedule of quantities and to formulate detailed specifications for works
- Two Bid System: Two bid system shall be adopted in case it is not feasible to formulate detailed specifications for works and in order to obtain the most satisfactory solution to its procurement needs.
- Tenders with Pre-qualification: Criteria for pre-qualification along with evaluation system shall be clearly spelt out in detail.

- Tenders with Post-Qualification: The procuring entity may also resort to post qualification verification. It may call financial offers and eligibility related documents in separate envelopes simultaneously.
- Open or Limited call of tenders: Open tenders will be called in all cases of works costing Rs. 5 lakhs and above. Limited tendering of works shall be adopted if only a limited number of tenderers are known to possess requisite skills, technology and resources, by reason of their highly complex or specialized nature, or for works of a secret nature.
- Single Source Procurement: Single source procurement shall be adopted in case the construction technology is available only with a particular contractor, or a particular contractor has exclusive rights in respect of the construction and no reasonable alternative or substitute exists.
- Award of work without call of tenders: Use of quotations shall be adopted for procurement of works that are not specially executed to the particular specifications. Also, it shall be ensured that the procurement entity shall not divide its procurement into separate contracts to bring the amount less than the amount set forth for such purpose.

Publicity of tenders

Wide publicity shall be given to the Notice Inviting Tender. Tenders shall be invited in the most open and public manner possible, by advertisement in daily newspapers circulated in the Urban Mobility Area, of which one shall be in the regional language.

Issue of tender documents

The tender document shall contain all the essential information as prescribed in the Government of Uttar Pradesh regulations or regulations as approved by the Board.

Pre-bid Conference

A pre bid conference may be held for clarifications on the tender document. At any time prior to the deadline for submission of tenders, the procuring entity may for any reason, whether on its own initiative or as a result of a request for clarification by a contractor, modify the tender documents by issuing addendum.

Submission and opening of bids

The procuring entity shall fix a place and a specific date and time as the deadline for the submission of tenders. If the procuring entity issues a modification of the tender documents or if a meeting of contractors is held; it shall extend the deadline if necessary, to allow contractors reasonable time to take the modification into account in their tender; after adequately publicizing such modifications.

Evaluation of Bids

The procuring entity may ask contractors for clarifications of their tenders in order to assist in the examination, evaluation and comparison of tenders. No change in a matter of substance in the tender, including changes in price and changes aimed at making an unresponsive tender as responsive shall be sought, offered or permitted. The procuring entity shall correct purely arithmetical errors that are discovered during the scrutiny of tender.

Acceptance of bids and Award of Work

The tender that has been ascertained to be the successful tender shall be accepted. Notice of award of work shall be given promptly to the supplier or contractor submitting the tender.

Measurement and Payment

Measurements of all items having financial value shall be recorded in measurement books and/or level field books so that a complete record is obtained of all works performed under the contract.

8.4.5 Procurement of Goods

This section provides guidelines for procurement of goods required for use by the Authority. This section covers the essential information and brief step-by-step procedures for procurement of goods. The guidelines are intended to provide assistance to the officials involved in procurement activities. It also intends to help develop an understanding of the procurement processes and to achieve uniformity in procurement activities to be undertaken by UMTA.

All officials may refer to the guidelines given in this section. However, the procurement of all goods, works and services by UMTA may be carried out in accordance with the provisions of the procurement / finance rules prevailing in Uttar Pradesh.

Guidelines for procurement of goods¹⁸:

The procurement of goods may fall into following categories:

- A.** Purchase of goods of small value (say up to INR 15,000): Procurement of goods of small value (say up to Rs. 15,000/-) could be made without taking approval of Director. There is no need to invite quotations or bids for such purchase. The purchase can be made on the basis of a certificate issued by the General Manager.
- B.** Purchase of goods of medium value (say from INR 15,000 to 1 Lakh): Purchase of goods of medium value (say above Rs. 15,000 to Rs. 1,00,000) can be made by taking approval of Director of the respective division. Such purchase could be made through market survey without inviting quotations or bids.
- C.** Purchase of goods of large value (say more than 1 Lakh to 25 Lakh): Purchase of goods of large value (say above Rs.100,000/-) could be made through obtaining bids. Three standard methods of obtaining bids can be followed i.e. Advertised Tender Enquiry, Limited Tender Enquiry and Single Tender Enquiry.

Exhibit 38 presents a process flow chart regarding the procurement of goods.

¹⁸ All amounts given in this section are indicative in nature, and may be updated by the discretion of Governing Board by cities.

Exhibit 38 Process flow chart for procurement of goods



8.5 CONCLUSION

The chapter discussed the broad procedures and guidelines to be followed to carry out day-to-day activities of the Governing Board and Secretariat. It described administrative and office management procedures, recruitment procedures and service conditions and procurement procedures.

ANNEXURE I – UMTA BILL FOR UTTAR PRADESH CITIES (SUBMITTED SEPARATELY)

ANNEXURE II – LIST OF CONSULTANTS EMPANELLED BY MOUD

No. K-14011/13/2011-MRTS/UT-II (Pt. III)

Government of India
Ministry of Urban Development
(UT-I Division)

Nirman Bhawan, New Delhi

Dated 30th April, 2015*clerk may*

To

The Principal Secretaries/ Secretaries (Urban Development/ Transport) of all States/ UTs

Subject: Empanelment of Consultants for Providing Handholding Assistance to Indian Cities in Setting up Unified Metropolitan Transport Authority (UMTA) and Urban Transport Fund (UTF).

Sir/ Madam,

Ministry of Urban Development, Government of India is implementing the Sustainable Urban Transport Project (SUTP) with support from Global Environment Facility (GEF) and the World Bank with the objective to ensure that environmental considerations are taken into account in implementation of the National Urban Transport Policy (NUTP) and to achieve a paradigm shift in urban transport systems in favour of sustainable development. The project envisages setting up of Unified Metropolitan Transport Authority (UMTA) and Urban Transport Fund (UTF) in the cities.

2. The related operations documents for Unified Metropolitan Transport Authority (UMTA) and Urban Transport Fund (UTF) will be uploaded on the website <http://moud.gov.in/> and <http://www.sutpindia.com/> shortly for reference and guidance to establish Unified Metropolitan Transport Authority (UMTA) and Urban Transport Fund (UTF) by cities. As the concept is new to the Indian cities which will require additional support from agencies having required expertise, the **Ministry has empanelled seven (07) qualified consultants following a competitive process**. List of empanelled consultants in the order of their ranking is attached at **Annexure**.

3. This empanelment has been done for providing the handholding assistance to cities while setting up the UMTA and UTF without having to go through the process of inviting EOIs and identifying suitable agencies.

4. This panel of consultants with requisite expertise is exclusive and specific to the UMTA and UTF projects only. The cities are free to engage any consultant for UMTA and UTF either by using the enclosed list or engaging any other through their own procedures.

5. There is flexibility to add/ delete names from the list based on the performance. The list will be available on the MoUD website <http://moud.gov.in/>. The panel will be valid for a period of six (06) years and the respective cities may directly engage any of the empanelled consultants after issue of RFP and evaluation of the offer. Expenditure shall have to be met from their own resources.

Contd. on page 2/-....

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6. It is therefore requested to make use of the panel in setting up of UMTA and UTF and take early action in establishing these institutions which will go a long way in improving the transport system in your cities.

Yours faithfully,

Enclosure: As Above.



(R. K. Singh)
Director (UT-I)
Tel:- 011-2306 2798

Copy to:-

- i. Shortlisted Consultants
- ii. National Project Manager, PMU/ SUTP

ANNEXURE**List of Empaneled Consultants for Unified Metropolitan Transport Authority (UMTA) and Urban Transport Fund (UTF) from Ministry of Urban Development, Govt. of India**

S. No.	Empaneled Consultant	Rank	Address
1	Joint Venture of Deloitte Touche Tohmatsu India Pvt. Ltd. and Voyants Solutions Pvt. Ltd	1	Mr. Vishwas Udgirkar, Senior Director 7 th Floor, Building 10 Tower B DLF Cyber City Complex, DLF City Phase II (New Delhi / NCR) Gurgaon, Haryana – 122002, India Telephone no: +91 (0124) 679 2000 Mob: +91 98114 18230 Fax: 0124 679 2012 Email ID - vudgirkar@deloitte.com
2	Consortium of Infrastructure Development Finance Company Ltd. (IDFC), Infrastructure Development Corporation (iDeCK), Feedback Infrastructure Services Pvt. Ltd. and Delhi Integrated Multi-Modal Transit System Limited (DIMTS)	2	Infrastructure Finance Company Limited (IDFC) Ms. Jyoti Gujral, Director The Capital Court, 2 nd Floor, Olof Palme Marg, Munirka, New Delhi - 110 067 Tel: +91 11 4331 1000 Fax: 91 11 26713359 Email ID - Jyoti@idfc.com
3	Ernst and Young Pvt. Ltd in association with SYSTRA MVA Consulting (India) Pvt. Ltd.	3	Mr. Abhaya Krishna Agarwal Executive Director & National PPP Leader 6 th Floor, HT House, 18-20 Kasturba Gandhi Marg, New Delhi 110 001 Telephone: 011 4363 3060 Mob: +91-9871 6933 42 Email ID- abhaya.agarwal@in.ey.com
4	LEA Associates South Asia Pvt. Ltd. (LASA)	4	Mr. Ananda Kishore Das, Chief General Manager, B-1/E-27, Mohan Co-operative Industrial Estate, Mathura Road, New Delhi – 110044, India. Tel- +91-11-41678150, 26973950/51/52 Mobile: +91-9810381490 Email: anandakdas@lasaindia.com

P.T.O.

S. No.	Empaneled Consultant	Rank	Address
5	CRISIL Risk and Infrastructure Solutions Limited in association with SLS Transport Training Institute and Consultancy Pvt. Ltd.	5	<p>Mr. Abhay Kantak, Director, Urban Practice Crisil House, Central Avenue, Hiranandani Business Park, Powai, Mumbai – 400076</p> <p>Phone: 91-22-33422 3000 Mobile - +91-9820416720 Email - abhay.kantak@crisil.com</p>
6	BITES Ltd	6	<p>Mr. Piush Kansal, Group General Manager (Urban Transport)</p> <p>Registered Address: Scope Minar, Laxmi Nagar, Delhi – 110092 Corporate Address: Rites Bhawan, No- 01, Sector 29, Gurgaon – 122001 Tel- 0124 – 2571666 Email – info@rites.com</p>
7	Consortium of Urban Mass Transit Company India Limited (UMTC) and Cambridge Systematics Consulting & Technology Pvt. Ltd.	7	<p>Urban Mass Transit Company India Limited, 2nd Floor, Corporate Tower, Ambiance Mall, NH-8, Gurgaon – 122022, India Tel – 0124 – 4716300 Email-ankush.malthora@ilfsindia.com</p>

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ANNEXURE III - UMTA STAFF: REQUIREMENTS OF POSITIONS

Chief Executive Officer

Position	Chief Executive Officer
Reports to	Governing Board
<p>Purpose of the position</p> <ol style="list-style-type: none"> To administer the affairs of the Authority and ensure its smooth and effective functioning in pursuit of organisational objectives and values. To execute the decisions and directives of the Governing Board. To exercise the powers and discharge the duties delegated by the Board. To recruit and manage the professionals in the executive office, including their performance assessments. To manage the overall performance of the Authority and achieve intended outcomes in accordance with the delegations, instructions and approvals from the Board. 	
<p>Responsibilities</p> <p>At Start Up:</p> <ol style="list-style-type: none"> Liaison with the Governing Board for obtaining approvals related to functional delegation, operation and agreements. Table the finalised Manual of Procedures for UMTA and its Secretariat, within three months from the date of establishment of the Governing Board. Take lead in preparing and submitting the 'vision' plan within three months of the establishment of the Governing Board. Monitor progress and provide critical inputs to the executive office towards achieving planned 'vision' for the city's public transport system. Lead recruitment and render appointments of key professionals and other staff adhering to process as specified in the Manual of Procedures. Ensure that the values, behaviour and culture of the people in the Authority are aligned with the mission of the Board and its strategic priorities. <p>Ongoing:</p> <ol style="list-style-type: none"> To coordinate with the Governing Board and executive office for implementation of transport functions for the selected jurisdiction. To ensure and maintain smooth functioning of the Authority's day-to-day work plan so as to achieve objectives set out in the business plan. To advise and assist the Governing Board on project prioritization and expedite the project implementation process. To ensure the proper organisation and functioning of the Board and the Secretariat through proper planning, financial budgeting and goal setting. To oversee successful conduct of Board meetings and ensure that the associated procedures and process before and after the Board meeting are in accordance with the Manual of Procedures. To represent the Board in acts of civil life – this includes representing the Board in meetings and negotiations with the implementing agencies, and representing the Board on all relevant national and international groups. To co-ordinate and direct the overall activities of the Authority so as to achieve the 	

Position	Chief Executive Officer
<p>objectives as stated in the UMTA Act and in the operations document.</p> <ul style="list-style-type: none"> h. To ensure that the activities and programmes of the Authority are executed effectively and efficiently in accordance with the business plan. i. To periodically review strategic plans and ensure their revision, if deemed necessary. j. To ensure that the Authority has adequate skilled resources to meet its strategic objectives, including recruiting, appointing, assessing, dismissing staff in strict compliance with the legislative and regulatory provisions in force. k. To promote the Board's identity and public image and establish sound working relationships with clients, relevant Ministries, implementing agencies, and other stakeholders. l. In conjunction with the Technical heads of the Executive Office, propose delegations to the Board and exercise the powers conferred by the Board. m. To ensure that all Board procurements, contracts and agreements are finalized and managed in a timely manner. n. To obtain Board approval of the annual budget, corporate accounts and of other documents as deemed necessary time to time. o. To present regular progress reports to the Board. p. To inform of innovative and sustainable transport practices, trends and issues and prepare the Board to respond efficiently and effectively to the changing environment. 	
<p>Reporting</p> <p>The CEO will report to the Governing Board at all meetings. The CEO shall also be the formal link between the Governing Board and the Executive Office.</p>	
<p>Salary and benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Required competence</p> <ul style="list-style-type: none"> a. Demonstration of successful management of a similar sized organisation specialising in transport sector. b. Demonstrated understanding of the political, technical, financial and administrative requirements of an organisation of this nature. c. Strong leadership and motivational qualities. d. Verbal and written communication and negotiation skills, in both English and relevant regional languages. e. Should be an Indian citizen. 	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. A Graduate Degree in Civil/Mechanical/Planning. b. Minimum post qualification experience of 15 years with at least 10 years' experience in public transport sector, including transport planning and management. c. Chartered (or equivalent) member of an appropriate professional institution. d. Extensive relationship management experience, including liaison with, communicating to, consulting with and influencing stakeholders. 	

Position	Chief Executive Officer
<p>e. At least five years of experience in working with the Central/State/local Government. Experience demonstrating part of advocacy group is highly preferable.</p>	
<p>Skills and personal attributes</p> <p>A forward thinking person with ability to design a set of strategies that effectively combat changes, resulting to long term stability of the organisation. Should be optimistic in nature, with ability to identify opportunities and tackle difficult situations. Based on the environmental factors at work, should be able to take timely actions to enhance the effectiveness of the organization. Effectively communicate with fellow team members and explore ideas and suggestions put forward by the team. Should be able to involve others in the decision-making process and promote a culture in which all the employees work as a team in order to achieve a common goal or objective.</p>	

Director – Planning

Position	Director – Planning
Reports to	CEO
<p>Purpose of the position</p> <p>a. To be part of the senior management of the Authority and hold overall charge of the planning function of UMTA for efficient and effective discharge of its functions in pursuit of organisational objectives.</p> <p>b. To provide strategic support to the CEO and the board on all matters related to planning for the overall development of the urban transport sector including preparation and finalisation of CMP and all strategic plans.</p> <p>c. To enhance strategic capability and strive for excellence.</p>	
<p>Responsibilities</p> <p>a. Lead preparation of transport vision for the urban area and policies for successful implementation of sustainable urban transport plans.</p> <p>b. Lead the development and finalisation of CMP for the urban area.</p> <p>c. Ensure the integration of urban transport planning with land-use planning.</p> <p>d. Coordinate with related external stakeholders and internal divisions, for achieving the objectives of the planning function of UMTA.</p> <p>e. Finalisation and detailing of a Transport Investment Programme for urban transport in consultation with implementation agencies.</p> <p>f. Prioritize ongoing activities based on short and long term plans.</p> <p>g. Advise the State Government on matters relating to urban transport.</p> <p>h. Perform such other tasks as may be allocated by the CEO of UMTA.</p> <p>i. Represent the Board’s interests to external stakeholders and strategic partners.</p> <p>j. Ensure that the behaviour and culture of the staff in the respective Division are aligned with the organization’s values and strategy to achieve an integrated work environment.</p> <p>k. Demonstrate excellence in staff management including appropriate recruitment, retention, performance management and development of employees.</p> <p>l. Maintain the safety and well-being of staff in the division.</p> <p>m. Develop a work programme for the division and manage workloads and work streams to ensure the programme is delivered according to plan.</p>	
<p>Reporting</p> <p>The Director Planning shall report to the CEO.</p>	
<p>Salary and benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Required competence</p> <p>a. Leadership: The quality to inspire, lead, coach and develop subordinates to achieve desired goals and objectives.</p> <p>b. Strategic Transport Planning Excellence: This includes deep understanding of strategic</p>	

Position	Director – Planning
<p>planning, sector understanding, regulatory environment, international best practices, government policies and their effects etc.</p> <p>c. Decision Making / Problem Solving: The ability to anticipate and define problems, analyse and evaluate information and situations and effect timely decisions.</p> <p>d. Strategic Orientation: The ability to think and act strategically, to link short and long-term visions to assigned tasks. This includes the ability to provide direction lay priorities and clarify roles and responsibilities.</p> <p>e. Results Orientation: A commitment to meeting and exceeding standards of excellence.</p> <p>f. Risk Management Orientation: This is the ability to identify and take advantage of opportunities while identifying and minimizing risks that could impede the authority from achieving its goals.</p> <p>g. Innovation: The ability to identify innovative solutions, identifying efficient processes, identifying non-value adding processes and develop creative approaches towards overall improvement.</p>	
<p>Qualifications and experience</p> <p>a. Degree in Transport Planning/Engineering or related field.</p> <p>b. At least 10 years of work experience of which last 5 years should be in the capacity of project manager position, delivering transport planning projects.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution.</p> <p>d. Having experience in development of transport sector programmes and their economic appraisal.</p> <p>e. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.</p>	
<p>Skills and personal attributes</p> <p>A forward thinking person with ability to design a set of strategies that effectively combat changes, resulting towards achieving long term business objective. Should be optimistic in nature, with ability to identify solutions during difficult situations. Effectively communicate with fellow team members and support them to achieve set targets. Should be broad minded and should encourage team members to put forward their suggestions towards achieving robust and quick solutions. Should respect others' views during the decision-making process and promote a culture in which all the subordinates work as a team in order to achieve a common goal or objective.</p>	

Director – Public Transport Management

Position	Director – Public Transport Management
Reports to	CEO
<p>Purpose of the position</p> <ol style="list-style-type: none"> To be part of the senior management of the authority and be in-charge of the Public Transport Management function of UMTA, ensuring that it efficiently and effectively carries out its functions and pursues its organisational objectives. To provide strategic support to the CEO and the Board on all matters related to public transport management for the overall development of the urban transport sector including planning for integrated sustainable public transportation for the urban area and overseeing operation of integrated facilities and systems for public transport and all associated regulatory matters. To develop standards and guidelines for public transport services specific to the urban area in consonance with the land-use pattern of the city. To provide effective leadership of executive office staff by modelling the way and keeping the organisational values alive and well. To provide leadership, enhance strategic capability and provide service excellence in the relevant technical or management field. 	
<p>Responsibilities</p> <ol style="list-style-type: none"> Lead the development of strategy and operational plans to achieve smooth integration among all available public transport modes in the urban area. Monitor and take necessary actions to facilitate smooth integration of public transport modes in the urban area. Ensure development of standards and guidelines are in place for achieving integrated public transport services which is in consonance with the land-use pattern for the urban area. Represent and take decision on behalf of the department in regards to all related regulatory functions including: <ul style="list-style-type: none"> • Contracting public transport operators for operating in the urban area • Strategizing for issue of licenses for public transport services in the urban area • Monitoring and regulating (or providing support in regulating) fee and charges of different modes of public transport Coordinating with all other relevant implementing agencies and supervise project implementation Actively coordinate and cooperate with the research division so to contribute towards development of innovative public transport solutions Monitor and advise on public transport safety Perform any additional functions on as allocated by the CEO time to time Develop a work programme for the Division and ensure the team works towards achieving it Responsible and accountable to the relevant division of UMTA 	

Position	Director – Public Transport Management
<p>Reporting</p> <p>The Director – Public Transport Management shall report to the Chief Executive Officer, and will periodically present written reports to the Board, particularly on Public Transport policy and planning related matters.</p>	
<p>Salary and benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Required competence</p> <ol style="list-style-type: none"> Leadership: The quality to inspire, lead, coach and develop others to achieve desired goals and objectives. This competency includes defining a vision and guiding individuals towards that vision. Public Transport Management Excellence: This includes deep understanding of overall institutional structure of public transport management especially for the urban area, the different public transport operators, the infrastructure requirements of urban transport, the operation and maintenance aspects of urban transport etc. Decision Making / Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions. Strategic Orientation: The ability to think and act strategically, to link short and long-term visions to daily activities. This includes the ability to provide clear direction and priorities, and clarify roles and responsibilities. This direction is based on a wider external perspective, where the directions of industry and community are considered. Innovation: The ability to identify innovative solutions, innovative planning, identifying efficient processes, identifying non-value adding processes and develop creative approaches that lead to overall improvement in working and the urban transport sector. 	
<p>Qualifications and experience</p> <ol style="list-style-type: none"> Post graduate degree in Transport Planning / Transport Engineering At least 10 years of work experience with last 5 years of experience in the capacity of senior management position involved in delivering Public Transport Solutions / providing expertise on public transport planning related functions. Chartered (or equivalent) member of an appropriate professional institution. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance. Experience in planning / strategy formulation / implementation of public transport projects/systems Experience in a position with strategic focus, ability to rise above detail, to summarise overall patterns, assess value, and see trends. Well-versed with public transport planning, technology approaches and best practises 	

Position	Director – Public Transport Management
<p>Skills and personal attributes</p> <p>A forward thinking person with ability to anticipate the future and design a set of strategies that effectively combat changes, resulting towards achieving long term business objective. Is optimistic in nature, with ability to identify solution even during difficult situations. Effectively communicate with fellow team members and support them to achieve set targets. Broad minded and encourage team to put forward their suggestions towards achieving robust and quick solutions. Should respect others views during the decision-making process and promote a culture in which all the subordinate work as a team in order to achieve a common goal or objective.</p>	

Director – Engineering

Position	Director – Engineering
Reports to	CEO
<p>Purpose of the position</p> <ol style="list-style-type: none"> To lead the Engineering Division of UMTA through its development processes and ensuring that it efficiently and effectively carries out its functions and pursues its organisational objectives. To provide technical inputs to all the other divisions of UMTA. Lead development of standards specification and guideline documents on engineering aspect related to urban transport within the urban area Review and lead development of strategies and plans for the division corresponding to the objectives of the division. To provide effective leadership, enhance strategic capability and provide service excellence in the relevant technical or management field. 	
<p>Responsibilities</p> <ol style="list-style-type: none"> Undertake standard specification and guideline preparation specific for urban transport engineering or as deemed necessary time to time. Provide engineering related inputs and solutions to other divisions Effectively coordinate with all relevant implementing agencies to ensure that specified design standards and norms are adopted Periodically supervise and monitor the implementation of projects by the department, Consultants or other agencies Ensure successful execution of important research, development, and evaluation efforts by period. Perform any additional functions as allocated by the CEO time to time Effectively represent the Board’s interests to external stakeholders and key partners Ensure that the values, behaviour and culture of the staff in the Engineering Division are aligned with the organization’s strategy 	
<p>Reporting</p> <p>The Director – Engineering, shall report to the CEO. The Director– Engineering shall periodically prepare and present written reports to the Board on engineering and transport planning aspects.</p>	
<p>Salary and benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Required competence</p> <ol style="list-style-type: none"> Leadership: The quality to inspire, lead, coach and develop others to achieve desired goals and objectives. Engineering Excellence: This includes deep understanding of engineering related aspects especially for the urban transport sector with focus on urban transport infrastructure and operations. 	

Position	Director – Engineering
<p>c. Decision Making / Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions.</p> <p>d. Results Orientation: A commitment to meeting and exceeding standards of excellence.</p> <p>e. Innovation: The ability to identify innovative solutions, innovative planning, identifying efficient processes, identifying non-value adding processes and develop creative approaches that lead to overall improvement in working and the urban transport sector.</p>	
<p>Qualifications and experience</p> <p>a. Post graduate degree in Transport/Traffic Engineering / or having any degree in any associated field (Civil/Mechanical)</p> <p>b. At least 10 years of work experience with last 5 years in the capacity of Senior Management position in delivering transport engineering design solutions and functions.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution</p> <p>d. Experience in engineering aspects of transportation projects including transport infrastructure, traffic engineering, operations, modelling and facilities development and their operation etc.</p> <p>e. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.</p>	
<p>Skills and Personal Attributes</p> <p>A forward thinking person with ability to anticipate the future and design a set of strategies that effectively combat changes, resulting towards achieving long term business objective. Is optimistic in nature, with ability to identify solution even during difficult situations. Effectively communicate with fellow team members and support them to achieve set targets. Broad minded and encourage team to put forward their suggestions towards achieving robust and quick solutions. Should respect others views during the decision-making process and promote a culture in which all the subordinate work as a team in order to achieve a common goal or objective.</p>	

Director – Policy and Research

Position	Director – Policy and Research
Reports to	CEO
Purpose of the Position <ol style="list-style-type: none"> To lead the Policy and Research Division of UMTA and ensure that it efficiently and effectively carries out its functions and pursues organisational objectives. To carry out policy, research, education and awareness activities for overall development of urban transport. To develop and manage local performance indicators for urban transport To provide effective leadership in enhance strategic capability and providing service excellence in the relevant field. 	
Responsibilities <ol style="list-style-type: none"> Leading activities for conducting research studies, education and awareness about good practices in urban transport Providing strategic inputs in development of policy, standards and guidelines for overall development of urban transport Ensuring the maintenance of updated database with information relating to urban transport, including details of projects, services, funding, and public transport safety etc. Contributing to developing and managing performance indicators for urban transport Identify, analyse and recommend innovative and improved practices, technology and processes for overall improvement of urban transport Developing networks in the research community in the field of public transport locally, nationally and internationally. Suggesting trainings, capacity buildings for enhancing quality of professionals in the urban transport. Perform all such other tasks as may be assigned by the CEO time to time Ensure that the values, behaviours and culture of the staff in the respective Division are aligned with the strategy of the Board to achieve a truly integrated work environment. 	
Reporting <p>The Director – Policy and Research, shall report to the CEO. The Director – Policy and Research, shall periodically update the current stage of the ongoing transport research projects to the Board</p>	
Salary and Benefits <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
Competence Required <ol style="list-style-type: none"> Leadership: The quality to inspire, lead, coach and develop others to achieve desired goals and objectives. Policy and Research Excellence: This includes deep understanding of overall policy and governance frameworks, public transport standards and guidelines, best practices, research studies etc. 	

Position	Director – Policy and Research
<ul style="list-style-type: none"> c. Strategic Orientation: The ability to think and act strategically, to link short and long-term visions to daily activities. This includes the ability to provide clear direction and priorities. d. Risk Management Orientation: This is the ability to identify and take advantage of opportunities while identifying and minimizing risks that will impede the authority from achieving its goals. e. Innovation: The ability to identify innovative solutions, innovative planning, identifying efficient processes, identifying non-value adding processes and develop creative approaches that lead to overall improvement in working and the urban transport sector. 	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Post graduate degree in Public Policy / Sustainable Development/ other relevant field b. At least 10 years of work experience with at least 5 years of experience in Senior Management position in Policy and / or Research division of any public sector entity (preferably in urban transport). c. Chartered (or equivalent) member of an appropriate professional institution Experience in policy making, research and analysis in aspects like urban transport, urban transport and health/environment, social issues, gender equality d. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance. 	
<p>Skills and Personal Attributes</p> <p>A forward thinking person with ability to anticipate the future and design a set of strategies that effectively combat changes, resulting towards achieving long term business objective. Is optimistic in nature, with ability to identify solution even during difficult situations. Effectively communicate with fellow team members and support them to achieve set targets. Broad minded and encourage team to put forward their suggestions towards achieving robust and quick solutions. Should respect others views during the decision-making process and promote a culture in which all the subordinate work as a team in order to achieve a common goal or objective</p>	

Director – Corporate Services

Position	Director – Corporate Services
Position Description	
Reports to	CEO
<p>Purpose of the Position</p> <p>a. To lead the Corporate Services Division of UMTA and be responsible for the Administration, Information Technology, Branding and Communications and Human Resource functions of UMTA.</p> <p>b. To manage office infrastructure, staff, and operations of all corporate services including development and maintenance of Authority’s business practices, administrative policies and procedures, personnel files, and associated functions.</p> <p>c. To ensure continuous improvement and the execution of Information Technology, Administration, Branding and Communications and Human Resources to enable the Authority achieve its objectives.</p>	
<p>Responsibilities</p> <p>a. Oversee the establishment of HR, Information Technology, Marketing and Branding, Communications and Administration policies for the Secretariat</p> <p>b. Preparation of Manual of Procedures pertaining to administrative policies, recruitment, procurement, branding and communications, information technology, employment etc.</p> <p>c. , Development and continuous monitoring and review of organisational policies including administrative policies, recruitment, procurement, branding and communications, information technology, employment etc.</p> <p>d. Preparation of periodic plans and reports including coordinating with all other divisions of UMTA for all necessary information and inputs leading to the development of such periodic plans and reports</p> <p>e. Procuring all required office works, goods and services including all stationary, utilities, IT networks, electronic devices, office equipment etc.</p> <p>f. Reviewing and developing the IT framework and tools</p> <p>g. Monitors expenditure and identifies opportunities for cost reduction</p> <p>h. Coordinate with all divisions of UMTA for soliciting all information required for fulfilling all functions of corporate services division</p> <p>i. Perform all such duties and functions as required by the Governing Board/ CEO time to time.</p>	
<p>Reporting</p> <p>The Director – Corporate Services, shall report to the CEO. The Director – Corporate Services, shall prepare and present written reports to the Board, particularly on policy, planning, projects and programme matters.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	

Position	Director – Corporate Services
<p>Competence Required</p> <ul style="list-style-type: none"> a. Leadership: The quality to inspire, lead, coach and develop others to achieve desired goals and objectives. b. Corporate Services Excellence: This includes deep understanding of corporate administrative, human resources and information technology policies and procedures. c. Strategic Orientation: The ability to think and act strategically, and ability to provide clear direction and priorities, and clarify roles and responsibilities d. Risk Management Orientation: This is the ability to identify and take advantage of opportunities while identifying and minimizing risks that will impede the authority from achieving its goals. 	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Post graduate degree in Management / Business Administration / other relevant field b. At least 10 years of work experience in the capacity of Senior Managerial position in an agency providing corporate services to any public sector entity. c. Chartered (or equivalent) member of an appropriate professional institution Experience in administrative, human resources, IT and associated procedures. 	
<p>Skills and Personal Attributes</p> <p>A forward thinking person with ability to anticipate the future and design a set of strategies that effectively combat changes, resulting towards achieving long term business objective. Is optimistic in nature, with ability to identify solution even during difficult situations. Effectively communicate with fellow team members and support them to achieve set targets. Broad minded and encourage team to put forward their suggestions towards achieving robust and quick solutions. Should respect others views during the decision-making process and promote a culture in which all the subordinate work as a team in order to achieve a common goal or objective</p>	

General Manager - Planning

Position	General Manager - Planning
Reports to	Director Planning
Purpose of the Position <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for management and execution of the responsibilities of the Planning Division of UMTA by assisting the Director Planning in carrying out his functions To provide strategic and operational support to the Director Planning on all matters related to planning for the overall development of the urban transport sector including preparation and finalisation of CMP and other such strategic planning works. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Planning Division 	
Key Responsibilities <ol style="list-style-type: none"> Providing assistance in developing principles and policies for sustainable urban transport system for the urban area Providing assistance in ensuring the integration of the urban transport planning with land-use planning. Coordinate with other UMTA Secretariat Divisions and planning/development agencies to achieve the same. Providing assistance in developing and finalisation of CMP for the urban area Ensuring effective coordination with all relevant agencies for achieving the objectives of the planning function of UMTA Providing assistance in finalisation of a detailed Transport Investment programme for urban transport in conjunction with implementation agencies. Communicate Board's strategic direction and ensure culture of collaborative working, with particular focus on compliance with the Board's policies and procedures to fellow staffs. Perform any additional functions as prescribed by the division head time to time 	
Reporting The General Manager shall report to the Director of Planning Division.	
Salary and Benefits The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Planning Excellence: This includes deep understanding of strategic planning, sector understanding, regulatory environment, international best practices, government policies and their effects etc. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines. Problem Solving: The ability to effectively analyse and evaluate information and situations 	

Position	General Manager - Planning
<p>and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions.</p> <p>e. Operational Excellence: The General Manager should have excellent operational capabilities to ensure the efficient, effective and admirable execution of activities.</p>	
<p>Qualifications and Experience</p> <p>a. Post graduate degree in the Transport Planning / Engineering or any relevant field.</p> <p>b. At least 8 years of work experience with last 3 years of experience towards executing Transport Planning projects.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution</p> <p>d. Experience in Transport planning, development of transport sector programmes and economic appraisal.</p> <p>e. Experience in managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.</p>	
<p>Skills and Personal Attributes</p> <p>The candidate should have ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager – Engineering

Position	General Manager – Engineering
Reports to	Director Engineering
<p>Purpose of the Position</p> <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for management and execution of the responsibilities of the Engineering Division of UMTA by assisting the Director Engineering in carrying out his functions To provide strategic and operational support to the Director Engineering on all matters related to technical / engineering inputs on all matters related to public transport including developing standards and guidelines. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Engineering Division 	
<p>Key Responsibilities</p> <ol style="list-style-type: none"> Lead preparation of standards and guidelines specific to transport engineering. Providing assistance in giving technical input to other divisions Achieving effective coordination with all relevant implementing agencies and supervising in project implementation, if required Assistance in providing value-added expertise in engineering discipline and project leadership. Assistance in providing execution oversight for important research, development, and evaluation efforts. Perform any additional functions as allocated by the division head time to time. 	
<p>Reporting</p> <p>The General Manager – Engineering shall report to the Director- Engineering</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Key Competence:</p> <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Excellence in Engineering; Ability to adapt and apply Engineering and Technology in Urban Transport planning, Implementation and review. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions. Operational Excellence: The General Manager should have excellent operational capabilities to ensure the efficient, effective and admirable execution of activities. 	

Position	General Manager – Engineering
<p>Qualifications and Experience</p> <ul style="list-style-type: none">a. Post graduate degree in the Transport Planning / Engineering or any relevant field d.b. At least 8 years of work experience with at last least 3 years of experience towards executing Transport Engineering projects.c. Member of an appropriate professional institutiond. Experience in transport engineering, designing standards, specifications and guidelines.e. Experience in managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager – Integrated Facilities Development Management

Position	General Manager – Integrated Facilities Development Management
Reports to	Director Public Transport Management
Purpose of the Position	
<ul style="list-style-type: none"> a. To be part of the middle management of the authority and being responsible for management and execution of a part of responsibilities of the Public Transport Management Division of UMTA by assisting the Director Public Transport Management in carrying out his functions b. To provide strategic and operational support to the Director Public Transport Management on matters related to development of integrated public transport infrastructure facilities. c. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Public Transport Management Division 	
Key Responsibilities	
<ul style="list-style-type: none"> a. Lead and coordinate with other agencies towards development of strategy plans for integration of all public transport modes to achieve sustainable integrated transport system vision for the urban area. b. Provide inputs to finalise CMP for the urban area c. Ensuring effective implementation of integrated transport infrastructure projects within specific timelines, budgets and quality levels. d. Ensuring effective coordination with the Policy and Research Division for innovative public transport solutions suitable to the urban area e. Ensuring effective coordination with all relevant agencies for achieving the objectives of the Public Transport Management function of UMTA f. Coordinate with the other divisions of UMTA for integrated holistic development of transport system within the urban area. g. Demonstrate excellence in staff management including the appropriate recruitment, retention, performance management and development of employees. h. Perform any additional functions as allocated by the division head time to time. 	
Reporting	
The General Manager Integrated Facilities Development Management shall report to the Director-Public Transport Management.	
Salary and Benefits	
The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Key Competencies	
<ul style="list-style-type: none"> a. Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. b. Transport Infrastructure Development Excellence: This includes in-depth understanding of infrastructure requirements of the urban transport sector, understanding of best practices, costs involved, efficient technologies and processes, strategic value addition by different 	

Position	General Manager – Integrated Facilities Development Management
<p>types of infrastructure etc.</p> <p>c. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines.</p> <p>d. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions.</p> <p>e. Operational Excellence: The General Manager should have excellent operational capabilities to ensure the efficient, effective and admirable execution of activities.</p>	
<p>Qualifications and Experience</p> <p>a. Post graduate degree in the Transport Planning / Transport Engineering / Infrastructure Planning / Civil Engineering / or any equivalent field.</p> <p>b. At least 8 years of work experience with at least 3 years of experience towards executing Public Transport Infrastructure Development projects.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution.</p> <p>d. Experience in planning / strategy formulation / implementation of public transport infrastructure projects</p> <p>e. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.</p>	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager – Integrated Public Transport Operations

Position	General Manager - Integrated Public Transport Operations
Reports to	Director Public Transport Management
Purpose of the Position <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for management and execution of the a part of responsibilities of the Public Transport Management Division of UMTA by assisting the Director Public Transport Management in carrying out his functions To provide strategic and operational support to the Director Public Transport Management on matters related to operation and management of infrastructure facilities for ensuring integration of public transport in the urban area. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Public Transport Management Division 	
Key Responsibilities <ol style="list-style-type: none"> Lead development of plan and strategy for operational integration of all public transport modes within urban area. Providing assistance in planning, strategizing and overseeing the operation and management of systems and facilities to maintain seamless public transport operations in the urban area Provide inputs for comprehensive development of standards and guidelines for public transport operation services Providing assistance in planning, strategizing and implementing/coordinating for implementing all related regulatory functions including: <ul style="list-style-type: none"> • Contracting public transport operators for operating in the urban area • Strategizing for issue of licenses for public transport services in the urban area • Monitoring and regulating (or providing support in regulating) fee and charges of different modes of public transport Collaborate and cooperate with other teams within and across the divisions to achieve Sustainable Urban Transport Vision Perform any additional functions as allocated by the division head time to time 	
Reporting The General Manager Integrated Public Transport Operations shall report to the Director-Public Transport Management.	
Salary and Benefits The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Transport Facilities Operation and Management Excellence: This includes in-depth 	

Position	General Manager - Integrated Public Transport Operations
<p>understanding of operational requirements of the urban transport sector, understanding of best practices, costs involved, efficient technologies and processes, etc.</p> <p>c. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines.</p> <p>d. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions.</p> <p>e. Operational Excellence: The General Manager should have excellent operational capabilities to ensure the efficient, effective and admirable execution of activities.</p>	
<p>Qualifications and Experience</p> <p>a. Post graduate degree in the Transport Planning / Transport Engineering / Operations Management / relevant field.</p> <p>b. At least 8 years of work experience with last 3 years of experience working in the field of Public Transport Operations and associated projects.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution</p> <p>d. Experience in planning / operations of public transport facilities and systems.</p>	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager – Policy and Research

Position	General Manager - Policy and Research
Reports to	Director Planning
Purpose of the Position <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for undertaking research activities. Assist the Director Policy and Research in carrying out and achieving objectives of the Policy and Research Division To provide strategic and operational support to the Director Policy and Research on all matters related to development of policy, standards and guidelines and carrying out research activities for the overall development of the urban transport sector. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Policy and Research Division 	
Key Responsibilities <ol style="list-style-type: none"> Demonstrate ability to undertake research studies, education and awareness activities about good practices in urban transport Able to effectively analyse research outputs before providing strategic inputs in development of policy, standards and guidelines for overall development of urban transport. Maintain and monitor performance indicators for urban transport Backed by research data, provide innovative solutions, in terms of policy, technology and process to improved urban transport services within the urban area. Perform any additional functions as prescribed by the division head time to time 	
Reporting The General Manager – Policy and Research shall report to the Director– Policy and Research.	
Salary and Benefits The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Policy and Research Excellence: This includes deep understanding of policy environment in the state / country, regulatory environment, international best practices, research methods, data analysis excellence, forecasting etc. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely solutions. 	

Position	General Manager - Policy and Research
e. Results Orientation: Maintain standards of excellence both in research quality and output.	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Post graduate degree in the Public Policy / Arts (Public Policy) / other equivalent b. At least 8 years of work experience with last 3 years of experience in performing research in the field of Urban Development, and transport related issues. . c. Chartered (or equivalent) member of an appropriate professional institution. d. Experience in policy making, research and analysis aspects of urban transport sector. e. Experience in managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance. 	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager –Corporate Services

Position	General Manager –Corporate Services
Reports to	Director –Corporate Services
Purpose of the Position <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for management and execution of part of the responsibilities of the Corporate Services Division of UMTA by assisting the Director - Corporate Services in carrying out his functions To provide strategic and operational support to the Director –Corporate Services on all matters related to administration, human resources and information technology for the authority in order to ensure smooth functioning of UMTA. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Corporate Services Division 	
Key Responsibilities <ol style="list-style-type: none"> Providing assistance in preparing HR, IT and Administration policies and timely review for all UMTA Division Providing assistance in preparation of periodic plans and reports including coordinating with all other divisions of UMTA Providing assistance in procuring all required office works, goods and services including all stationary, utilities, IT networks, electronic devices, office equipment's etc. Providing assistance in reviewing, developing and recommending appropriate employment conditions and remuneration structures, and leads any industrial relations negotiations Coordinating with all divisions of UMTA for soliciting all information required for fulfilling all functions of corporate services division Perform any additional functions as prescribed by the division head time to time 	
Reporting The General Manager – Internal Corporate Services shall report to the Director - Corporate Services.	
Salary and Benefits The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Corporate Services Excellence: This includes deep understanding of corporate administration, human resource management, information technology infrastructure etc. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. Operational Excellence: The General Manager should have excellent operational 	

Position	General Manager –Corporate Services
capabilities to ensure the efficient, effective and admirable execution of activities.	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Post graduate degree in Management / Business Administration / other relevant field b. At least 8 years of work experience with last 3 years of experience in-charge of managing Corporate Administration functions. c. Chartered (or equivalent) member of an appropriate professional institution. d. Experience in administrative, human resources, IT and associated procedures e. Experience in a position with strategic focus, ability to rise above detail, to summarise f. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance. g. Experience in building and fostering relationships. 	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted while maintaining employee morale.</p>	

General Manager – Branding, Communications and Public Relationship Management

Position	General Manager – Branding, Communications and Public Relationship Management
Reports to	Director – Corporate Services
Purpose of the Position <ol style="list-style-type: none"> To be part of the middle management of the authority and being responsible for management and execution of part of the responsibilities of the Corporate Services Division of UMTA by assisting the Director - Corporate Services in carrying out his functions To provide strategic and operational support to the Director –Corporate Services on all matters related to branding, communications and public relationship management for the authority. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Corporate Services Division 	
Key Responsibilities <ol style="list-style-type: none"> Providing assistance in preparing branding, communications and public relationship management policies for UMTA Ensuring effective branding of UMTA including its vision, mission and goals, the need and benefits of UMTA Lead development and monitoring of organisational policies including branding, communications and public relationship management policies and guidelines etc. Coordinating with all divisions of UMTA for soliciting all information required for fulfilling all functions of corporate services division Perform any additional functions as prescribed by the division head time to time 	
Reporting The General Manager – Branding, Communications And Public Relationship Management shall report to the Director – Corporate Services.	
Salary and Benefits The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required <ol style="list-style-type: none"> Leadership: The General Manager should have a quality to inspire, lead and coach junior team members to achieve desired goals and objectives. Branding and Public Relationship Management Excellence: This includes deep understanding of branding and public relationship management practices etc. Managerial Excellence: The General Manager should have excellent managerial capabilities to plan and execute tasks and manage team members achieve targets and timelines. Problem Solving: The ability to effectively analyse and evaluate information and situations and render effective decisions. This includes anticipating, identifying and defining problems, seeking root causes and developing and implementing practical and timely 	

Position	General Manager – Branding, Communications and Public Relationship Management
<p>solutions.</p> <p>b. Results Orientation: A commitment to meeting and exceeding standards of excellence.</p> <p>c. Operational Excellence: The General Manager should have excellent operational capabilities to ensure the efficient, effective and admirable execution of activities.</p>	
<p>Qualifications and Experience</p> <p>a. Post graduate degree in Communication / Marketing / Advertising or any similar field</p> <p>b. At least 8 years of work experience with last 3 years of experience in the field of Branding and / or Public Relationship Management advisory group.</p> <p>c. Chartered (or equivalent) member of an appropriate professional institution.</p> <p>d. Experience in branding, public relationship management and associated procedures</p> <p>e. Experience in delegation, managing workloads and work streams, budgeting and monitoring costs, and ensuring compliance.</p> <p>f. Experience in building and fostering relationships.</p>	
<p>Skills and Personal Attributes</p> <p>The candidate should have the ability to oversee all administrative functions for smooth functioning of the Division. A major part will involve leading and directing its support staff and other employees. Delegate tasks to the subordinates charting out clear objectives and expectations, while giving the resource the freedom to deal the issue. Maintain division efficiency by ensuring proper procedures are adopted to maintain employee morale.</p>	

Support Staff – Transport Planner

Position	Support Staff – Transport Planner
<p>Purpose of the Position</p> <p>Transport planners would work on policies, plans and projects relating to all kinds of transport systems. This includes roads and the use of cars, lorries and buses, rail networks, pedestrian systems for walking or cycling. Transport planner will screen scenarios so as to identify ways to improve these systems or how new systems can be implemented in certain areas in line with 'vision' statement of UMTA. He/she will take into consideration issues such as climate change, the economy and the environment.</p>	
<p>Key Responsibilities</p> <ol style="list-style-type: none"> a. designing and interpreting transport and travel surveys; b. writing clear reports and presenting options and recommendations on transport systems to the Division head; c. using statistical analysis to examine travel data or accident records; d. forming potential solutions to transport problems; e. using mathematical and computer simulation models to forecast the effects of road improvements, policy changes and/or public transport schemes; f. evaluating the benefits and costs of different strategies; g. participating in public consultation initiatives, including designing leaflets or questionnaires and attending scheme exhibitions; h. managing studies and projects, often within tight time and budget limits; i. assessing infrastructure requirements (access, car parking, bus stops, cycle parking, etc.) of new developments to support planning applications or to inform local authority development plans; j. liaising and negotiating with different parties, e.g. planning and highways authorities, residents' groups, councillors/politicians, developers, transport providers; k. developing the initial design ideas for new or improved transport infrastructure, such as junction improvements, pedestrian priority schemes, bus interchange or bus priority facilities, car parking areas, etc.; l. acting as an expert witness at public inquiries and planning appeals; 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Planning.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ol style="list-style-type: none"> a. Expertise in sustainable transport development policy and practice b. Experience in programmes/projects related to Transport Planning and management. c. Experience in formulating urban transport sector policies. d. Experience in working in transport sector institutions in India. 	

Position	Support Staff – Transport Planner
Qualifications and Experience <ul style="list-style-type: none">a. Post graduate degree in the Transport Planning / Transport Engineering.b. At least 5 years of work experience with last 2 years of experience in delivering Transport Planning projects.c. Member of an appropriate professional institution.d. Experience in Transport planning, development of transport sector programmes and economic appraisal.	
Skills and Personal Attributes <p>Creative approach to problem solving good project management skills excellent communication skills and confidence with people report writing and presentation skills good negotiating skills a knowledge of computer modelling software an understanding of transport issues a commitment to continuous professional development</p>	

Support Staff – Urban Planner

Position	Support Staff – Urban Planner
<p>Purpose of the Position</p> <ol style="list-style-type: none"> To be part of the executive team of the authority and being responsible for execution of the responsibilities of the Planning Division of UMTA To provide operational support to the General Manager Planning on all matters related to planning for the overall development of the urban transport sector including assistance in preparation and finalisation of CMP and other such strategic planning works from urban planning and integration of planning perspectives. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Planning Division 	
<p>Responsibility</p> <ol style="list-style-type: none"> Providing operational assistance in developing principles and policies for sustainable development and urban transport system for the urban area Providing technical assistance from urban planning perspectives in developing and finalisation of CMP for the urban area. Evaluates or assists in the evaluation of re-zonings, ordinance amendments, site plans, special use permits, variances and other proposals Providing assistance in ensuring the integration of the urban transport planning with land-use planning Providing assistance in finalisation of a Transport Investment Programme for urban transport in conjunction with implementation agencies Carry out such other functions and duties that are delegated to the position 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Planning.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ol style="list-style-type: none"> Knowledge of the principles and practices of planning Knowledge of a relevant specialization such as transportation, land-use Knowledge of principles and practices of research and data collection Knowledge of effective writing techniques Statistical, algebraic, or geometric knowledge and ability to apply such knowledge in practical situations Knowledge of computer hardware and software programs, which may include Microsoft Office, Internet applications, and GIS 	
<p>Qualifications and Experience</p> <ol style="list-style-type: none"> Post graduate degree in the Urban Planning / relevant field. At least 5 years of work experience of which last 2 years being involved in city development planning and urban transport related project. 	

Position	Support Staff – Urban Planner
<ul style="list-style-type: none">c. Member of an appropriate professional institution.d. Sound knowledge of urban and transport planning and concepts and methodologies.	
<p>Skills and Personal Attributes</p> <ul style="list-style-type: none">a. Oral communication and interpersonal skills to explain rules and procedures clearly to the superiors and to the publicb. Creative problem-solving skills to gather relevant information to solve vaguely defined practical problemsc. Ability to review plans and apply provisions of the ordinances and codes to determine compliance with such regulations and to apply regulations to field conditionsd. Ability to create graphic designs, development strategies, and render site plans via sketches and/or computer graphics highly desirable.e. Ability to work on several projects or issues simultaneouslyf. Ability to work independently or in a team environment as neededg. Ability to attend to details while keeping big-picture goals in mind	

Support Staff – Civil Engineer

Position	Support Staff – Civil Engineer
<p>Purpose of the Position</p> <p>a) To be part of the executive team of the authority and being responsible for execution of the responsibilities of the Engineering Division of UMTA</p> <p>b) To provide operational support to the General Manager Engineering on all matters related to civil engineering aspects involving technical / engineering inputs, standards and guidelines.</p>	
<p>Key Responsibilities</p> <p>a) Providing operational assistance in preparing standards and guidelines specific to transport/traffic engineering.</p> <p>b) Providing all necessary civil engineering related inputs including on standards and guidelines for urban transport infrastructure</p> <p>c) Assistance in providing value-added expertise in engineering discipline and project leadership.</p> <p>d) Assistance in providing execution oversight for important research, development, and evaluation efforts.</p> <p>e) Carry out such other functions and duties that are delegated by the Divisional head.</p>	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Engineering.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <p>Civil Engineer shall be capable to support variety of tasks on a wide range of civil development and civil public infrastructure projects (including mixed use developments, transportation projects and public infrastructure projects). Assignments may consist of AutoCAD drafting, field surveying support / calculations, as well as coordination with public agencies and other consultants.</p>	
<p>Qualifications and Experience</p> <p>a) Graduate degree in the Civil Engineering / relevant field.</p> <p>b) At least 5 years of work experience with last 2 years of experience in completing and delivering transport related project.</p> <p>c) Member of an appropriate professional institution.</p> <p>d) Experience with CAD Software packages and other design packages is a plus.</p>	
<p>Skills and Personal Attributes</p> <p>a) Strong commitment to advancing UMTA's mission and to environmental and social justice.</p> <p>b) Demonstrated ability to manage people and projects to successful project outcomes.</p> <p>c) Strong communication skills, including preparing daily reports.</p> <p>d) Ability to manage multiple priorities and projects, work well under pressure and keep to</p>	

Position	Support Staff – Civil Engineer
deadlines. e) Ability to maintain high work standards.	

Support Staff – Mechanical Engineer

Position	Support Staff – Mechanical Engineer
<p>Purpose of the Position</p> <ul style="list-style-type: none"> a. To be part of the executive team of the authority and being responsible for execution of the responsibilities of the Engineering Division of UMTA b. To assist the General Manager Engineering on matters related to mechanical engineering and concepts. 	
<p>Key Responsibilities</p> <ul style="list-style-type: none"> a. Read and interpret blueprints, technical drawings, and computer-generated reports. b. Research, design, evaluate, install, operate, and maintain mechanical products, equipment, systems and processes to meet requirements. c. Apply knowledge of mechanical engineering principles, related inputs including on standards and guidelines for urban transport infrastructure, for example on rolling stock, other machinery etc. 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Engineering.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Key Competence</p> <p>Mechanical Engineer shall be capable to support variety of tasks on a wide range of mechanical related projects elements (including rolling stock, operational maintenance and management). Assignments may consist of AutoCAD drafting, on-field handholding, as well as coordination with agencies undertaking similar project in the urban area.</p>	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Graduate in Mechanical Engineering / relevant field. b. At least 5 years of work experience with at least 2 years of experience in Mechanical Engineering Function. c. Member of an appropriate professional institution. d. Experience in development of infrastructure projects, such experience in urban transport sector would be preferable e. Sound knowledge of urban and transport planning and programming theories and methods. 	
<p>Skills and Personal Attributes</p> <ul style="list-style-type: none"> a. Strong commitment to advancing UMTA’s mission and to environmental and social justice. b. Demonstrated ability to manage people and projects to successful project outcomes. c. Strong communication skills, including preparing daily reports. d. Ability to manage multiple priorities and projects, work well under pressure and keep to deadlines. e. Ability to maintain high work standards. 	

Support Staff – Integrated Facilities Development Engineer/Planner

Position	Support Staff – Integrated Facilities Development Engineer/Planner
<p>Purpose of the Position</p> <ol style="list-style-type: none"> To be part of the executive team of the authority and being responsible for execution of responsibilities of the Public Transport Management Division of UMTA To provide operational support to the General Manager Integrated Facilities Development Management on matters related to development of infrastructure facilities for ensuring integration of public transport in the urban area. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Public Transport Management Division 	
<p>Key Responsibilities</p> <ol style="list-style-type: none"> Coordinate with different department including city development agency, other divisions and other national/state/local institutions to facilitate integrated transport facilities. Research, analyse, monitor, and make recommendations to promote integrated transport facilities and infrastructure. Represent the Department/Division on a wide variety of complex initiatives, projects and working teams Investigate and respond to inquiries, requests, or complaints received by the Governing Board, and or other citizen stakeholders, either directly or through participation of members of the department. This includes responding to ad-hoc requests for information, confidential advice and prepare reports as required Responsible for providing information, advice and recommendations on behalf of the General Manager and Leadership Team in support of the division's operations and directions. Manages a wide variety of assigned project which are complex, and may be confidential and/or politically sensitive. Coordinate department activities and assignment of responsibilities required to complete project work 	
<p>Reporting</p> <p>The Support Staff shall report regularly to the General Manager –Integrated Facilities Development Management.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ol style="list-style-type: none"> Proven ability to work effectively with senior levels within an organization across all operating areas. Strengths in prioritizing and managing urgent items in a fast paced, deadline driven environment Quick learner and able to adapt quickly, in diverse areas An excellent ability to build and develop strategic and collaborative partnerships with diverse stakeholders, including the public, external partners Exceptional communication abilities, listening, presentation and writing. 	

Position	Support Staff – Integrated Facilities Development Engineer/Planner
f. Demonstrate a highly consultative level with excellent presentation skills, preferably to a political audience	
Qualifications and Experience <ul style="list-style-type: none"> a. Post graduate degree in the Transport Planning / Transport Engineering / Infrastructure Planning/Infrastructure Development/Infrastructure Management or any equivalent field. b. At least 5 years of work experience with last 2 years of experience in the field of Public Transport Infrastructure Development and associated projects. c. Member of an appropriate professional institution 	
Skills and Personal Attributes <ul style="list-style-type: none"> a. Fluency in oral and written English, and outstanding inter-personal skills. b. Strong team spirits, and ability to handle multiple priorities, take initiative, and deliver under tight deadlines 	

Support Staff – Integrated Public Transport Operation Engineer/Planner

Position	Support Staff – Integrated Public Transport Operation Engineer/Planner
<p>Purpose of the Position</p> <ol style="list-style-type: none"> a. To be part of the executive team of the authority and being responsible for execution of responsibilities of the Public Transport Management Division of UMTA b. To provide operational support to the General Manager Integrated Public Transport Operations on matters related to development of infrastructure facilities for ensuring integration of public transport in the urban area. c. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Public Transport Management Division 	
<p>Key Responsibilities</p> <ol style="list-style-type: none"> a. Providing operational assistance in developing plan and strategy for integration of all public transport modes to ensure effective operation and management of sustainable integrated transport system for the urban area. b. Providing operational assistance in planning, strategizing and overseeing the operation and management of systems and facilities for integration of public transport in the urban area c. Ensuring efficiency in operation and management of integrated transport facilities and systems. d. Providing operational assistance in developing standards and guidelines for public transport services specific to the urban area in consonance with the land-use pattern of the city e. Providing operational assistance in planning, strategizing and implementing/coordinating for implementing all related regulatory functions including: <ul style="list-style-type: none"> • Contracting public transport operators for operating in the urban area • Strategizing for issue of licenses for public transport services in the urban area • Monitoring and regulating (or providing support in regulating) fee and charges of different modes of public transport f. Providing operational assistance in promoting development of integrated multi-modal public transport systems for the urban area g. Carry out such other functions and duties that are delegated to the position 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Integrated Public Transport Operations.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Key Competence</p> <ol style="list-style-type: none"> a. Expertise in sustainable development policy and practice b. Experience in programmes/projects related to Public Transport Planning and 	

Position	Support Staff – Integrated Public Transport Operation Engineer/Planner
<p>management.</p> <p>c. Experience in formulating public transport sector policies and data management systems and operational guidelines.</p> <p>d. Experience in working in transport sector institutions in India.</p>	
<p>Qualifications and Experience</p> <p>a. Post graduate degree in the Transport Planning / Transport Engineering / Operations Management / relevant field.</p> <p>b. At least 5 years of work experience with last 2 years of experience in the field of Public Transport Operations and management.</p> <p>c. Member of an appropriate professional institution.</p> <p>d. Experience in planning / operations of public transport projects</p> <p>e. Experience in planning operation of public transport facilities and systems</p>	
<p>Skills and Personal Attributes</p> <p>a. Strong commitment to advancing UMTA’s mission and to environmental and social justice.</p> <p>b. Demonstrated ability to manage people and projects to successful project outcomes.</p> <p>c. Excellent research and analytical skills. You should enjoy working with large datasets!</p> <p>d. Strong communication skills, including preparing effective graphics and making powerful presentations.</p> <p>e. Ability to manage multiple priorities and projects, work well under pressure and keep to deadlines.</p> <p>f. Ability to maintain high work standards while contributing pragmatic ideas.</p>	

Support Staff – Transport Researcher

Position	Support Staff – Transport Researcher
<p>Purpose of the Position</p> <p>The researcher will support several projects related to sustainable mobility in general, with a focus on transit policy, planning and operations.</p>	
<p>Key Responsibility</p> <ol style="list-style-type: none"> Conduct desktop research on sustainable transportation policies, and deliver on-the-ground projects. Track and survey state-of-the-practice policies on sustainable urban development/transport and explore the applicability to the urban area. Participate in the scoping of project and policy research opportunities. Assist in developing practical policy tools and guidelines on sustainable urban development/transport for the urban area. Help organise/participate in external events, workshops, conferences, and other project dissemination or capacity building activities. Assist in grant management and project management work as needed, Assist in other ongoing projects, as needed. Produce, proofread, and edit research reports and papers in English and coordinate the publication process. Support other activities as needed. 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Policy and Research.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Key Competence</p> <ol style="list-style-type: none"> Strong research and quantitative analytical skills Strong academic ethics Excellent research, analytical writing and presentation skills 	
<p>Qualification and Experience</p> <ol style="list-style-type: none"> The candidate should maintain confidentiality, use sound judgement and perform independently while performing the duties of the human resource officer. The incumbent should also demonstrate the following personal attributes: Maintain standards of conduct Be respectful Possess cultural and political awareness and sensitivity Be flexible Demonstrate sound work ethics Be consistent and fair 	
<p>Skills and Personal Attributes</p> <ol style="list-style-type: none"> Fluency in oral and written English, and outstanding inter-personal skills. Strong team spirits, and ability to handle multiple priorities, take initiative, and deliver under tight deadlines. 	

Support Staff – Policy Expert

Position	Support Staff – Policy Expert
<p>Purpose of the Position</p> <ul style="list-style-type: none"> a. To be part of the executive team of the authority and being responsible for execution of the responsibilities of the Policy and Research Division of UMTA b. To provide operational support to the General Manager Policy and Research on all matters related to policy and guidelines development related activities for the overall development of the urban transport sector. c. To ensure effective execution, operational efficiency and functional excellence in fulfilment of tasks of Policy and Research Division 	
<p>Key Responsibilities</p> <ul style="list-style-type: none"> a. Providing operational assistance in carrying out necessary activities for development / update / key inputs in development of policies, standards and guidelines. b. Providing technical assistance in developing strategic options for consideration in development of policies, guidelines and standards. c. Assist in performing technical and economic appraisals of existing/new implemented policies to reduce gaps. d. Constantly cite international best practices and find possible ways to adapt / adopt in Indian context e. Carry out such other functions and duties as and when required by the General Manager. 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Policy and Research.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ul style="list-style-type: none"> a. Expertise is in sustainable development policy and practice b. Experience in programmes/projects related to Indian public sector Urban Planning frameworks and management. c. Specific experience in formulating transport sector policies and data management systems and operational guidelines. d. Experience in working in transport sector institutions in India. 	
<p>Qualifications and Experience</p> <ul style="list-style-type: none"> a. Post graduate degree in the Public Policy / Arts (Public Policy) relevant field. b. At least 5 years of work experience with at least 2 years of experience in Policy function of any public / private sector entity c. Member of an appropriate professional institution 	
<p>Skills and Personal Attributes</p> <ul style="list-style-type: none"> a. Analytical and policy skills, preferably in the field of either sustainability or CSR 	

Position	Support Staff – Policy Expert
	<ul style="list-style-type: none"> b. Familiarity with sustainability reporting c. Understanding of multi-stakeholder dynamics d. Practical experience with development cooperation, (inter) governmental relations and /or with international organizations e. Experience in relationship management with high level people/groups f. Diplomatic and public relations skills g. Pro-active and able to be results and relationship oriented at the same time h. Ability to work from own initiative on a day-to-day basis, based on agreed medium term objectives, reporting to a manager at a geographical distance i. Excellent writing skills, native-level j. English language skills required (written and verbal) including writing of policy text, project proposals and report k. Effective project management skills

Support Staff – Human Resource Executive

Position	Support Staff – Human Resource Executive
<p>Purpose of the Position</p> <p>The Human Resource Officer is responsible for providing support in the various human resource functions, which include recruitment, staffing, training and development, performance monitoring and employee counselling.</p>	
<p>Skills and Personal Attributes</p> <p>The candidate should maintain confidentiality, use sound judgement and perform independently while performing the duties of the human resource officer. The staff should also demonstrate the following personal attributes:</p> <ol style="list-style-type: none"> maintain standards of conduct be respectful possess cultural and political awareness and sensitivity be flexible demonstrate sound work ethics be consistent and fair 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager –Corporate Services.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ol style="list-style-type: none"> Able to analyse information quickly and use it to make robust decisions. Able to gain commitment from different quarters in order to benefit the organisation. Expert in both HR and commercial issues, and takes a professional approach. Able to work well with a range of people both within and outside of the organisation. Focused on delivering best possible results for the organisation, and shows determination, resourcefulness and a sense of purpose in achieving this. Have the courage and confidence to speak up and will challenge others even when met with resistance or unfamiliar circumstances. An inquisitive, open-minded type, who seeks out new ways to support the development of the organisation 	
<p>Qualifications and Experience</p> <ol style="list-style-type: none"> Post graduate degree in the Human Resources / other relevant field At least 5 years of work experience of which at least last 2 experience in delivering Human Resources Functions. 	
<p>Skills and Personal Attributes</p> <p>The candidate should maintain confidentiality, use sound judgement and perform independently while performing the duties of the human resource officer. The incumbent should also demonstrate the following personal attributes:</p> <ol style="list-style-type: none"> maintain standards of conduct be respectful, consistent and fair possess cultural and political awareness and sensitivity demonstrate sound work ethics 	

Support Staff – Administration Executive

Position	Support Staff – Administration Executive
<p>Purpose of the Position</p> <p>Provide diversified administrative support with minimal supervision. Anticipate the needs of senior level manager and proactively solve problems and/or independently handle issues. May be responsible for leading other administrative staff or subordinates.</p>	
<p>Key Responsibilities</p> <p>Performs administrative and office support activities for multiple supervisors. Duties may include fielding telephone calls, receiving and directing visitors, word processing, creating spreadsheets and presentations, and filing. Extensive software skills are required, as well as Internet research abilities and strong communication skills. Staff in this category also may have the title of department assistant, coordinator or associate.</p>	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Internal Corporate Services.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Competence Required</p> <ol style="list-style-type: none"> a. Demonstrated high-level administrative experience which includes advanced computer skills and demonstrated experience with office software and email applications. b. Extensive administrative experience at the executive level; c. Proven success at supporting multiple senior staff professionals, ability to adapt to different work styles d. Excellent planning and organizational skills. e. Office Management skills f. Displays initiative and a positive “can do” attitude; proactively anticipates needs g. Demonstrated ability to handle sensitive issues and maintain confidentiality. h. High level of discretion, judgment and tact i. Proven ability to be discreet and diplomatic when dealing with sensitive information j. Demonstrated ability to perform duties with a high level of professionalism, flexibility, discretion, judgment, diplomacy and tact. k. Ability to work effectively with others and build relationships that support the position Ability to multi-task, adapt to changing priorities and meet deadlines. l. Knowledge of basic accounting practices 	
<p>Qualifications and Experience</p> <ol style="list-style-type: none"> a. Bachelor’s degree preferred b. 1-3 years office experience as an Executive/Personal Administrative Assistant preferred c. Previous customer service experience preferred d. Should be able to effectively communicate with people both in person, and over the telephone 	

Position	Support Staff – Administration Executive
<p>Skills and Personal Attributes</p> <p>Because the job requires the staff to deal with managers, executives, and technical staff and clerks at all levels of the organization, as well as clients, executive administrator should possess excellent interpersonal skills. He/she should listen actively to instructions from their bosses, explain information verbally to subordinates and write reports that general employees understand. Good organizational and time-management skills are needed; juggle several tasks at the same time and may work for more than one executive. The staff should have effective computer skills for using software to process, organize and present data effectively.</p>	

Support Staff – Information Technology

Position	Support Staff – Information Technology
<p>Purpose of the Position</p> <p>Reporting to the General Manager – Corporate Service Division of UMTA, the support staff will be responsible for assisting the manager in all matters related to IT services include monitoring and maintaining the computer systems and networks within the UMTA Secretariat. Depending on the size of the organisation, an IT support officer's role may span one or more areas of expertise.</p>	
<p>Key Responsibilities</p> <ol style="list-style-type: none"> a. installing and configuring computer hardware operating systems and applications; b. monitoring and maintaining computer systems and networks; c. talking staff or clients through a series of actions, either face to face or over the telephone to help set up systems or resolve issues; d. troubleshooting system and network problems and diagnosing and solving hardware or software faults; e. replacing parts as required; f. providing support, including procedural documentation and relevant reports; g. following diagrams and written instructions to repair a fault or set up a system; h. supporting the roll-out of new applications; i. setting up new users' accounts and profiles and dealing with password issues; j. responding within agreed time limits to call-outs; k. working continuously on a task until completion (or referral to third parties, if appropriate); l. prioritising and managing many open cases at one time; m. rapidly establishing a good working relationship with customers and other professionals, e.g., software developers; n. testing and evaluating new technology; o. Conducting electrical safety checks on computer equipment. 	
<p>Reporting</p> <p>The Support Staff shall report to the General Manager – Internal Corporate Services.</p>	
<p>Salary and Benefits</p> <p>The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).</p>	
<p>Key Competence</p> <ol style="list-style-type: none"> a. Attention to Detail - Meticulous; thoroughly reviews and proofreads various IT related data/information; dedicates focus to accomplish tasks that are complete, precise, and accurate to a given IT situation. b. Customer Service - Works with internal clients and customers (that is, any individuals who use or receive IT services or IT products within UMTA Secretariat) to assess IT needs, provide assistance, resolve fairly complex or non-routine problems, or satisfy expectations; knowledge of available products and services; committed to providing quality IT products and services. 	

Position	Support Staff – Information Technology
<p>c. Communication - Expresses technical information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); listens to others, recognizes potential miscommunication, attends to nonverbal cues, and responds appropriately.</p> <p>d. Problem Solving - Identifies IT related problems using a variety of materials or sources; gathers and applies technical information to determine accuracy and relevance to moderately complex problems; uses sound judgment to generate and evaluate alternatives; makes decisions or recommendations that influence IT policies or programs and applies new developments to previously unresolved problems.</p>	
<p>Qualifications and Experience</p> <p>The resource should have a graduate degree with qualifications in computing, IT-related subjects, business studies and management. Previous relevant computing, software or training experience is normally essential, although personality and aptitude may be regarded as being equally important. Teaching and training qualifications can also be advantageous.</p>	
<p>Skills and Personal Attributes</p> <p>Working knowledge of information technology systems and networking theory, principles, and current practices and developments; working knowledge of data applications and database support; working knowledge of the application and integration of wireless technology systems; working knowledge of server and desktop operating systems, including Windows and DOS, and protocols, including TCP/IP, SMTP, SNMP, and telnet; working knowledge of the application and integration of audio, video, and related communication systems; working knowledge of troubleshooting methodology; working knowledge of word processing, spreadsheets, database, and graphics applications.</p> <p>Skill in operating the listed tools and equipment. Ability to express complex technical concepts effectively, both verbally and in writing; ability to maintain assigned programs and systems; ability to troubleshoot assigned programs; ability to meet project deadlines; ability to establish and maintain effective working relationships with colleagues and supervisors; ability to communicate effectively orally and in writing.</p>	

Support Staff – Branding, Communications and Public Relationship Management

Position	Support Staff – Branding, Communications and Public Relationship Management
Purpose of the Position	
Reporting to the General Manager – Corporate Service Division of UMTA, the support staff will be responsible for assisting the brand, communication team in continually enhancing Sustainable Urban Transport activities promoted by the board. Undertaking activities contributing towards enhancing cities urban transport image, its awareness, media, partnerships, collaboration with other agencies and relationship marketing.	
Key Responsibilities	
<ul style="list-style-type: none"> a. Demonstrate skills, knowledge and experience in the design and execution of marketing, communications and public relations activities. b. Strong creative, strategic, analytical, organizational and personal sales skills. c. Experience developing and managing budgets, and hiring, training, developing, supervising and appraising personnel. d. Demonstrate successful experience writing press releases, making presentations and negotiating with media. e. Experience overseeing the design and production of print materials and publications. f. Computer literacy in word processing, data base management and page layout. g. Commitment to working with shared leadership and in cross-functional teams. h. Strong oral and written communications skills. i. Ability to manage multiple projects at a time. 	
Reporting	
The Support Staff shall report to the General Manager – Branding, Communications And Public Relationship Management.	
Salary and Benefits	
The pay scale is recommended to be at par with that of central/state level public sector undertakings (PSUs).	
Competence Required	
<ul style="list-style-type: none"> a. Experience and proven expertise in the relevant sector b. The support staff should have excellent operational capabilities to execute tasks within assigned timelines and expectations. c. The support staff should have the ability to effectively analyse and evaluate information and situations and render effective solutions. d. Should be committed to achieving results with high standards of quality and efficiency 	
Qualifications and Experience	
<ul style="list-style-type: none"> a. Post graduate degree in degree in Commerce, Marketing, Advertising, Communication, Finance, or any other related field. b. At least 5 years of work experience of which at least last 2 years’ experience handling branding and communication responsibilities for Urban Planning project. c. Experience in branding, public relationship management and associated procedures d. Experience working in the not-for-profit or association sector highly preferable. 	

Position	Support Staff – Branding, Communications and Public Relationship Management
<p>Skills and Personal Attributes</p> <p>This role requires constant communication, thus, strong verbal and written communication skills are required. The candidate should be knowledgeable in marketing and public relations. He/she should be highly motivated, well organized, detail-oriented, creative and innovative, and possess good time management skills. He/she should be able to multi-task, do market research and analyse results effectively, prioritize and influence stakeholders; understand the target market and its dynamics.</p>	

ANNEXURE IV - TEMPLATE FOR THE NOTE FOR STATE GOVERNMENT

[Please note that this will depend on the state legal department rules followed and we would not be able to comment on the same].

No. _____

Government of State of

[Department of Legal Affairs]

[Lucknow]

Note for the State Government

Subject: Establishment of Unified Metropolitan Transport Authority and Urban Transport Fund – Enactment of Legislation - Regarding

1. Introduction

A snapshot of the proposal in 3 or 4 sentences.

2. Background

A brief background of the proposal to understand its genesis. This would include reference to NUTP 2006, initiatives by Ministry of Urban Development - Government of India, development of generic legislation for setting up UMTA and UTF by Ministry of Urban Development, Government of India, initiatives for setting up UMTA and UTF in the urban area etc.

3. Proposal

The proposal may be stated with clarity and precision so that there is no ambiguity in what the urban area aims to achieve by implementing the proposal. The time-lines for completion of different stages of the projects/scheme/plan etc., where relevant, need to be clearly spelt out.

4. Justification

Rationale of the proposal may be brought out in this part of the note.

5. Stakeholder Consultations

Details of all stakeholder consultations and their views/comments should be brought out in this section.

6. Financial Implications

The financial implications of the proposal may be worked out as accurately as possible and should be detailed in this section. Further, the manner in which the expenditure is proposed to be borne may also be clearly indicated.

7. Approval Paragraph

The approval paragraph shall contain the proposal on which consideration and approval of the Cabinet is solicited. It should be a self-contained paragraph and drafted with clarity and precision leaving no scope for ambiguity or differing interpretations.

8. Statement Of Implementation Schedule (Appendix- I)

In accordance with the prescribed format and conforming to the approval paragraph.

9. Statement Of Equity, Innovation And Public Accountability (Appendix- II)

In accordance with the prescribed format, details of how the proposal will meet the three criteria to be included in the main body of the note.

10. Approval of the Minister-in-charge

The last paragraph should indicate about the approval of the Minister-in-charge to the proposal(s) contained in the note.

Enclosed: Draft Legislation*

Signature_____

Name_____

Designation_____

Telephone No._____

****Draft Legislation should be enclosed along with the Note***

Note: The above format is indicative and the exact headings may vary.

ANNEXURE V - STATEMENT OF IMPLEMENTATION SCHEDULE

Subject: Establishment of Unified Metropolitan Transport Authority and Urban Transport Fund

S No.	Gist of Decision Required	Projected Benefits	Time-frame and manner of Implementation

Signature_____

Name_____

Designation_____

Telephone No._____

Note: The above format is indicative and the exact headings may vary.

ANNEXURE VI - MOTION FOR INTRODUCTION OF LEGISLATION

To

[The Secretariat General],
Legislative Assembly,
[Lucknow].

Sir,

I give notice of my intention to move for leave to introduce a Legislation (Here give the long title of the Legislation), during the ensuing/current session of the Vidhan Sabha and also to introduce the Legislation.

Yours faithfully,

Minister

Copy to:

- (1) Department of Parliamentary Affairs.
- (2) Legal Department

Note: The above format is indicative and the exact headings may vary.

ANNEXURE VII – CASE STUDY OF LAMATA

History and evolution

Lagos is by far the largest and most complex urban area in Nigeria, the largest country in Africa by population. The metropolitan area, an estimated 300 km², is a group of islands endowed with creeks and a lagoon. The rate of population growth is about 600,000 per annum with a population density of about 4,193 persons per km². In the built-up areas of metropolitan Lagos, the average density is over 20,000 persons per km². Whereas Nigeria's population growth rate is 4-5 percent per year and the global population growth rate is 2%, Lagos' population is growing ten times faster than New York and Los Angeles with grave implication for urban sustainability. The UN estimates that at its present growth rate, Lagos will be the third largest mega city in the world by 2015 after Tokyo in Japan and Mumbai in India.

Lagos State was created on May 27, 1967 by virtue of State (Creation and Transitional Provisions) Decree No. 14 of 1967, which restructured Nigeria's Federation into 12 States. Prior to this, Lagos Municipality had been administered by the Federal Government through the Federal Ministry of Lagos Affairs as the regional authority, while the Lagos City Council (LCC) governed the City of Lagos. The metropolitan areas (Colony Province) of Ikeja, Agege, Mushin, Ikorodu, Epe and Badagry were administered by the Western Region.

The metropolitan area of Lagos is now extending beyond the Lagos State boundary into the neighbouring state of Ogun in the north. As a result, passenger trips are growing in length as well as number. Lagos is the nodal point of all transport modes - air, water, road and rail. The rapid urbanisation, combined with inadequate or poorly executed development plans, has given rise to numerous transportation problems in Lagos metropolis. These include increasing traffic congestion, worsening state of disrepair of roads, deteriorating physical attractiveness and comfort of road-based public transport, sky rocketing transport fares, absence of effective rail and water mass transit transport, rising levels of road accidents and increasing rates of traffic-related emission and atmospheric pollution etc.

Key Challenges in Lagos Urban Transport

The Lagos metropolitan area consists of 18 Local Government Areas (LGA) out of 21 in the state, with their own elected governments. These LGAs have a works department and a traffic management unit responsible for road maintenance and traffic management on local government roads. As a result, more than 100 agencies at local, state or federal government levels had a role in transport provision and/or services in the city. Often most of these agencies would develop and implement their own policies and programs in isolation, without much regard to the effect of other policies on theirs or theirs on others. In addition to this, some of the key issues affecting the transport sector in Lagos were:

Fragmented and weak institutional structure: Involvement of over 100 agencies at local, state and federal government levels in transport provision and/or service delivery in the city with no coordination framework.

Lack of integrated transport system: One of the major causes of transport problems in Lagos was the underutilization of public transport modes such as rail and water, thus restricting the development of an integrated transport system.

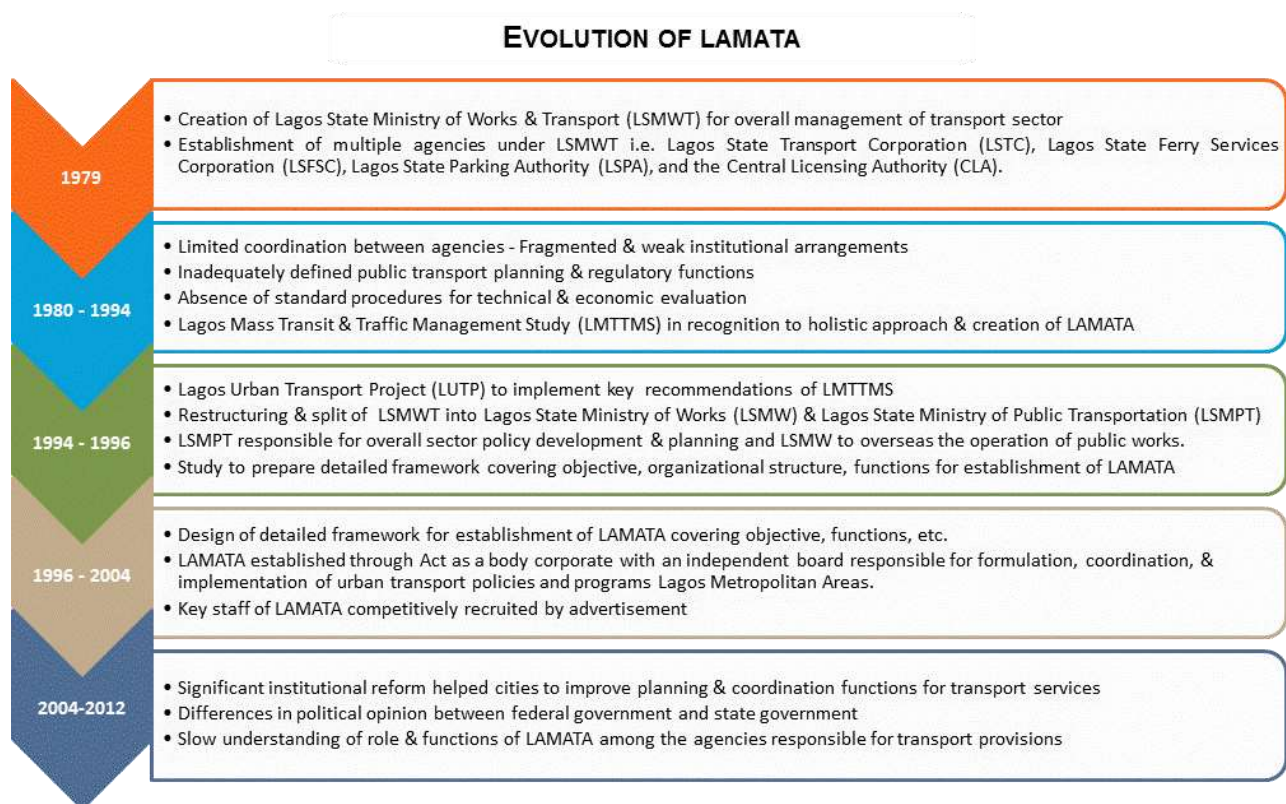
Lack of standard procedures for evaluation and selection of projects: Absence of standard procedures for the technical and economic evaluation of programs and projects resulted in a strong bias toward capital expenditure rather than making better use of existing investments through better management and maintenance practices.

Lack of articulated policy and planning: There was an absence of an articulated and adopted policy and strategic framework for the sector, and inadequately defined public transport planning and regulatory functions.

Limited focus on traffic management planning: There was no well-equipped traffic management institution; inadequately trained transport/traffic engineering staff, involvement of traffic police with traffic management planning because of an absence of professional civilian alternative.

Considering the above issues, in 1992 a Lagos Mass Transit and Traffic Management Study (LMTTMS) was undertaken with the support of the World Bank in recognition of need for a holistic approach to urban transport. One of the key recommendations of the study was to establish a single agency with responsibility for sector planning and coordination and to re-allocate agency responsibilities. As a result the Lagos Metropolitan Area Transport Authority (LAMATA) was established in 2002 as a corporate body with independent board responsible for formulation, coordination and implementation of urban transport policies and programs in the Lagos metropolitan area. The evolution of LAMATA is documented in Exhibit 39.

Exhibit 39 Evolution of LAMATA



In the above context, the following section presents a study of LAMATA in terms of its requirements, institutional, organizational, financial structure and its performance. The key lessons learnt from the study have also been highlighted, which can help us in developing options and selection of suitable options for UMTA/UTF to address the urban transport challenges in India.

Exhibit 40 Key driving factors for creation of LAMATA



Establishment of LAMATA

The State Government established the Lagos Metropolitan Area Transport Authority (LAMATA), with the World Bank’s collaboration in the form of technical advice and direct financial assistance.

LAMATA was formally launched on December 2, 2003. It was created to provide an overall vision and a strategic planning basis for addressing the long neglected transport needs of the metropolis and to coordinate the activities of the different executing agencies to provide a common and consistent basis for implementation. The key driving factors for the creation of LAMATA are highlighted in Exhibit 40.

Scope of LAMATA

LAMATA is created to formulate and implement policies and strategies, plan, coordinate, and manage activities and programmes that will produce and sustain a holistic, efficient and effective public transportation system that also supports poverty reduction, provides economic opportunities and promotes viable communities in metropolitan Lagos.

The Authority has the overall responsibility for transport planning and coordination in the Lagos metropolitan area with the primary mandate to play a lead role in carrying out transport planning and assist in transport policy formulation and coordination of major operational and investment decisions and implementation. LAMATA provides an overall vision and a strategic planning basis to address long neglected transport needs of the metropolis and coordinate activities of the different executing agencies to provide a common and consistent basis for implementation. The specific functions of LAMATA are highlighted in Exhibit 41:

Exhibit 41 Functions of LAMATA

	FUNCTIONS
Policy	<ul style="list-style-type: none"> • Co-ordinate transport policies, programmes and actions of all transport related agencies in the Lagos metropolitan area. • Recommend on policy issues on public transportation to the Governor including mechanisms for implementation.
Planning	<ul style="list-style-type: none"> • Prepare plans for management and development of transportation in metropolitan Lagos

	FUNCTIONS
Coordination	<ul style="list-style-type: none"> • Recommend on route planning and general location of bus shelters, pedestrian ways and bridges. • Ensure optimal utilisation of intermodal means of transport including road, waterways, rail and non-motorised transport. • Put in place strategies to ensure overall improvement in traffic flow and planned and programmed traffic engineering and management works.
	<ul style="list-style-type: none"> • Plan, coordinate, manage and develop the supply of adequate and effective public transportation within metropolitan Lagos. • Coordinate activities of the State Licensing Authority and all vehicle inspection units.
Regulation	<ul style="list-style-type: none"> • Procuring and regulatory functions • Fare structuring
Funding	<ul style="list-style-type: none"> • Collect and levy transport road user charges and establish a Transport Fund to sustain the performance of LAMATA. • Fund infrastructure
Implementation	<ul style="list-style-type: none"> • Formulate and implement programmes and policies for the overall improvement of public transportation systems • Manage construction of transport infrastructure
Operations and Maintenance	<ul style="list-style-type: none"> • Maintain and manage the declared road network within metropolitan Lagos. • Ensure the physical traffic serviceability of the declared road network • Undertake traffic management activities in metropolitan Lagos. • Carry out the comprehensive maintenance of roads and related infrastructure, inventory of roads and transport network, continuous evaluation of road network status. • Manage the fare collection system.

After creation of LAMATA, the division of responsibilities of the various agencies in the transport sector were rationalised as depicted in Exhibit 42:

Exhibit 42 Division of responsibilities within LAMATA

AGENCIES	RATIONALISATION OF PRIME RESPONSIBILITIES AFTER CREATION OF LATAMA
Federal Government and its Agencies	<ul style="list-style-type: none"> • Development and implementation of national transport policies • National road traffic legislation and vehicle regulations • National environmental standards for transport vehicles and fuels

	<ul style="list-style-type: none"> • Guidance on best practice in urban transport strategies and sector management
Lagos State Government and its Ministries	<ul style="list-style-type: none"> • Establishment and definition of the transport sector policy and the regulatory framework • Lagos State road traffic ordinances and vehicle construction and use regulations • Construction of new, and upgrading of existing, roads in Lagos State • Supervision of the activities of the State Parastatals in the sector
LAMATA	<ul style="list-style-type: none"> • Co-ordination of the transport policies, programs and actions of all transport related agencies in Lagos State • Maintenance and management of the declared road network • Planning and development of traffic systems management schemes to raise road network efficiency • Planning and coordination of the supply of adequate and effective public transport within metropolitan Lagos • Development of the infrastructure for public transport operations in Lagos State, including public transport priority and passenger interchanges • Collection of all transport user charges as authorized by LSG for the establishment of a Transport Fund, and their disbursement • Co-ordination of all activities of the State Licensing Authority and all vehicle inspection units or sections, including data gathering • Technical assistance to LSG and Lagos Local Governments on all matters relating to the transport sector in the State
Lagos Local Governments	<ul style="list-style-type: none"> • Through Traffic Management Units, implementation of the policies of Lagos State Government as required by LAMATA • Retain responsibility for vehicle parking, motor parks and passenger interchanges, and other transport-related aspects in accordance with the Nigerian Constitution
Private Sector	<ul style="list-style-type: none"> • All road transport operations, both passenger and freight • Rail mass-transit operations, under contract or concession • Road construction and maintenance activities, under contract

Legal basis

LAMATA was created by an Act signed into law on January 13, 2002. The law gives LAMATA several powers to facilitate the discharge of its statutory functions, including the power to levy and collect user charges in connection with the provision of its services and to collect any other tariffs, fees and road taxes as may be authorized by the Governor.

Institutional Arrangements

The LAMATA is governed by a Board of 13 members. The Board reflects the Authority's stakeholders, comprising representatives of transport operators, transport unions in Lagos State, the organized private sector, the general public, local government areas, and transport related Lagos State Government agencies. The stakeholders of LAMATA are depicted in Exhibit 43. The key features of LAMATA's institutional and organisational structure are depicted in Exhibit 44.

Out of the total members, seven are private transport sector representatives and six are from the government. The Board / MD report to Governor and not to the State Commissioner for Transport. The board contains representatives, inter-alia, from following ministries / agencies:

- Lagos State Ministry of Finance
- Lagos State Ministry of Works and Infrastructure
- Lagos State Ministry of Economic Planning and Budget
- Lagos State Ministry of Transportation

Exhibit 44 Key features of LAMATA's Institutional and Organisation structure

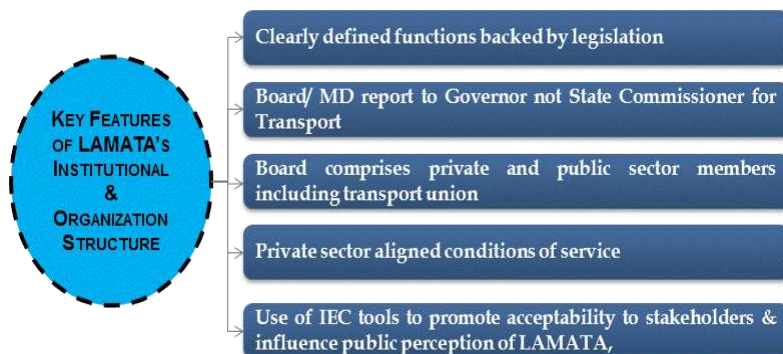
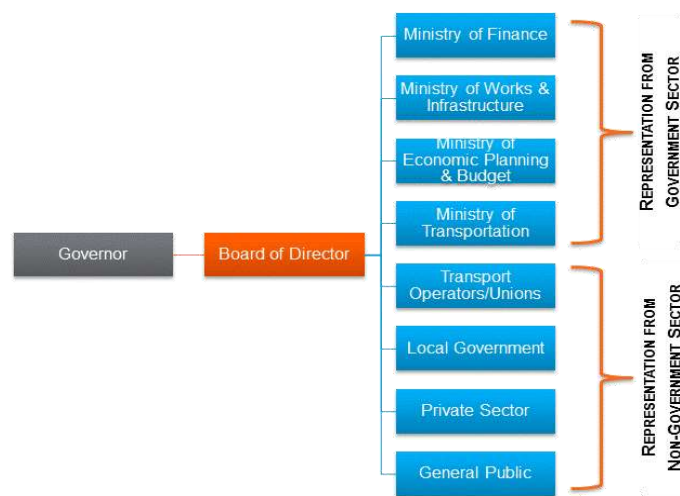


Exhibit 43 Representation of stakeholders in LAMATA



It was recognized that, to build an efficient and effective

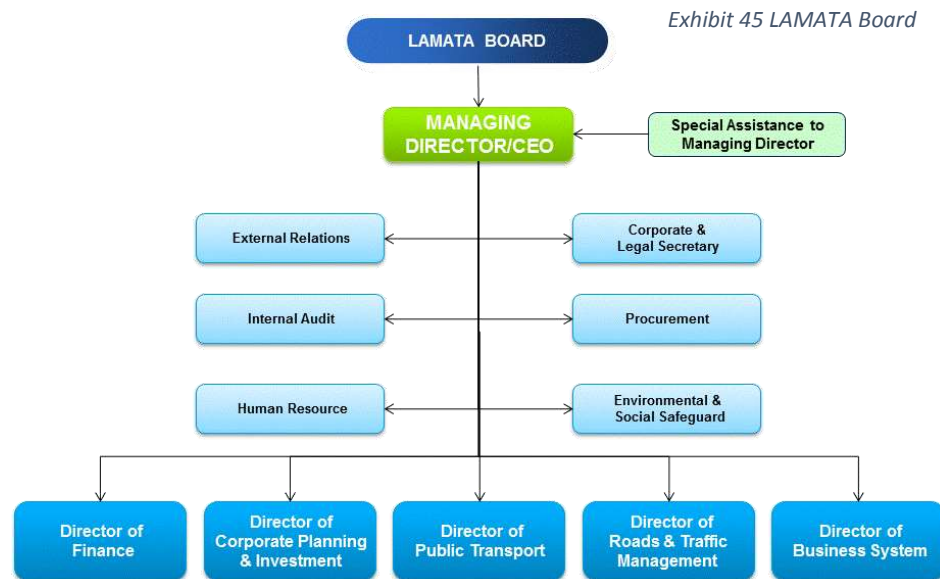
transportation system in metropolitan Lagos, active involvement of all the stakeholders will be required. Therefore, LAMATA's approach is to ensure the involvement of all stakeholders through information, consultation and participation on various consultative, interactive and participatory processes. The stakeholder representation start from the State Governor who has the prime responsibility for all development efforts in his State, including transportation, to the Development Partners, civil servants at state and federal government levels, local government chairpersons and councillors, private sector operators, as well as the owners, drivers, conductors and users of the minibuses, and the majority of the inhabitants of the Lagos metropolis.

The identified stakeholders comprise of some 100 general contact groups classified into 10 major categories – Internal, Government, Development Partners, Mass Media professionals and institutions, Civil Society, Transport Associations, Police, Organized Private Sector, General public and UN/Donor/Bilateral Agencies. The only full time member is the Managing Director / Chief Executive Officer (MD / CEO), head of the management team.

Organisational structure

The LAMATA operates a lean bureaucracy of professional staff competitively selected according to World Bank standards, assisted by consultants with proven competencies. The organization consists of five major departments dealing with the key issues for which LAMATA is responsible. These include: Finance, Corporate Planning and Investment, Public Transport, Roads and Traffic Management, and Business System.

In addition, there are five other units reporting directly to the Managing Director. A Special Assistant to the Managing Director assists with the running and coordination of the Managing Director’s Office. The units under the Managing Director’s direct supervision are External Relations, Internal Audit, Corporate and Legal, Procurement, Environmental & Social Safeguard etc. The broad roles and responsibilities of some of the key directorate and units are briefed in Exhibit 46.



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Exhibit 46 Roles and responsibilities of the key directorate

DIRECTORATE / UNIT	RESPONSIBILITIES
Corporate and Legal	<ul style="list-style-type: none"> • Effective coordination & collaboration with all the stakeholders in the public transportation sector • Interpretation of Project Documentation that guide LAMATA • Review of contracts, & security documentation submitted by the contractors/consultants • Collaboration with the various departments/units on legal issues relating to LAMATA
Corporate Planning and Investment	<ul style="list-style-type: none"> • Preparation of Five-Year Corporate & Investment Plan • Review & guide the implementation of the organization’s Plans and Projects

Public Transport	<ul style="list-style-type: none"> • preparation of the Annual Budget & Report in consultation with Director of Finance (DoF) • Oversees human resources, office administration and research & development functions.
	<ul style="list-style-type: none"> • Planning & executing all activities associated with the LUTP components for Public transport • Responsible for bus enhancements, water services promotion, rail and mass transit development • Integration of all mode of transport
Roads and Traffic Management	<ul style="list-style-type: none"> • Improve physical traffic serviceability of the Declared Road Network in Lagos metropolis • Managing a comprehensive program of routine, recurrent, periodic maintenance activities • Oversees the implementation of all traffic system • Responsible for traffic engineering and junction improvements needed to reduce congestion • Improve network efficiency and improve traffic safety
Procurement	<ul style="list-style-type: none"> • Plans and manage the procurement of all goods, services and works essential to the successful operations of LAMATA in line with World Bank procurement guidelines.
Finance	<ul style="list-style-type: none"> • Overall responsibility for day-to-day financial management of the Authority • Preparing annual project budget, monthly statement of accounts • Preparing financial monitoring reports, and annual financial statements • Forwarding financial reports & statements to the State Ministry of Finance and IDA
Internal Audit	<ul style="list-style-type: none"> • Evaluating the reliability of the accounting systems, data, and financial reports. • Periodic reviews of project activities, records, accounts and systems; ensures effectiveness of financial and non-financial matters, as well as compliance with control mechanisms.
Environmental and Social Safeguard	<ul style="list-style-type: none"> • Safeguards assessment, with emphasis on pedestrian safety, social and environmental impacts. • Ensuring that all transport investments on the network managed by LAMATA conform to appropriate environmental and safety standards.

It is to be noted that, LAMATA staff remuneration and retention packages are pitched at private sector levels so as to attract, retain and motivate high calibre staff that can assist LAMATA in meeting the challenges of transforming transportation in Lagos. The organization has also prepared and is implementing several policies designed to assure effective operations. These include an employee handbook, a financial management system manual, a procurement

procedures manual, IT policy, staff training needs assessment and plan, and a LAMATA policies and procedures manual.

Financing Arrangements

SOURCES:

As specified in the LAMATA Act, its functions include:

- Collect and levy transport road user charges and establish a Transport Fund (TF) as a user reform financing mechanism to increase the low level of cost recovery in the transport sector, and to sustain the performance of LAMATA;
- Collect 50% of net Motor Vehicle Administration (MVA) revenue (specific items) to be paid directly into the TF.¹⁹

Therefore, the main sources of revenue for Transport Fund are:

1. Transport road user charges
2. 50% of net Motor Vehicle Administration (MVA) revenue

LAMATA is also vested with powers to levy user charges in connection with the provision of its services and to collect any other tariffs, fees, including road taxes, as may time to time be approved by the Governor.

The transport fund was established in August 2005 and resulted in increased financial sustainability. The Transport Fund has been successful as a funding vehicle and has been able to generate about US\$23M of revenues to date²⁰.

Apart from the Transport fund the LAMATA Law allows the Authority to find other funding vehicles for purposes of cost recovery.

UTILISATION:

The funds are utilized by LAMATA in fulfilling its obligation relating to policy / planning, promoting and facilitating operations and performance monitoring, planning of schemes on all primary and secondary roads, promote and facilitate traffic policing, monitor effectiveness and recommend needed changes etc.

MANAGEMENT OF FUND:

This fund is managed by LAMATA. The fund management is achieved by the coordination of corporate planning and investment and the finance departments.

The corporate planning and investment department prepares the of five-year corporate & investment plan while the finance department is given the overall responsibility for day-to-day financial management of the authority, preparing annual project budget and monthly statement of accounts and other financing activities.

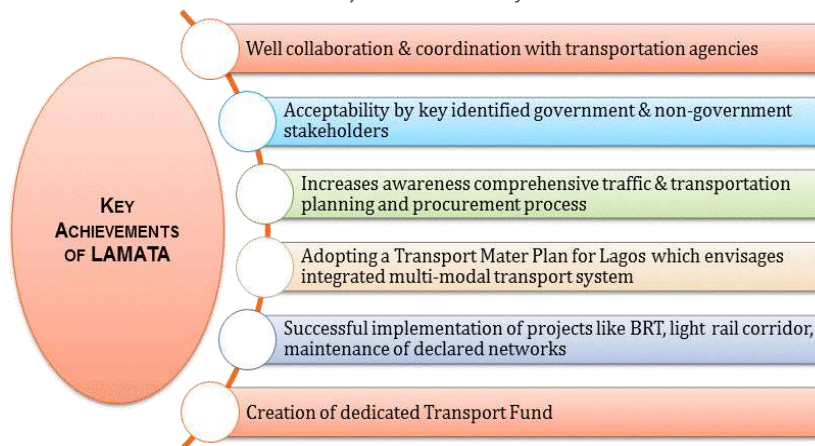
¹⁹ <http://www.lamata-ng.com/background.php>

²⁰ <http://www.lamata-ng.com/lutp1.php>

Key Achievements of LAMATA

LAMATA collaborates with identified stakeholders comprising about 100 general contact groups classified into 10 major categories – internal, government, World Bank, mass media professionals and institutions, civil society, transport associations, Police, organized private sector, general public and UN/donor/bilateral agencies.

Exhibit 47 Key achievements of LAMATA



To date LAMATA has enjoyed a good working relationship and collaboration with the State Ministries of Transportation, Works and Infrastructure, Finance, Physical Planning and Urban Development, Sports and Social Development, Economic Planning and Budget, the revered legislators in the State House of Assembly among others. At the Federal level, LAMATA have received and are still receiving support from the Federal Ministries of Transport and Works, the Nigerian Railway Corporation, and Bureau of Public Enterprises.

Over the past years, LAMATA succeeded in contributing to increased awareness in the need for traffic management, transparency and discipline in procurement processes and involving the users in decision-making processes. LAMATA has started, for the first time in the country, the design and execution of maintenance work with participation of the private sector through awarding contracts to the local consultants and contractors. Experience has shown that the output of maintenance works through contracts is more efficient, cost effective and better in quality compared with the traditional methods of using force account procedures. LAMATA activities are now widely recognized by the Government, participating communities and development partners as an efficient and high-performing initiative that has significantly contributed to the city’s poverty reduction goals, notably by improving accessibility in low-income areas, involving communities in identification of priority programs and improving sector management.

The key achievements of LAMATA are displayed in Exhibit 47 and their success strategy is illustrated in Exhibit 48.

Exhibit 48 LAMATA's success strategy

Nonetheless, Lagos State is about adopting a Transport Master Plan for Lagos which envisages a multi-modal transport system that will utilize a mixture of light rail and metro, bus rapid transit and water transit systems, all to be complemented by a franchised bus services system and major institutional reforms.

Five performance indicators, shown in the figure, have been developed to assess the performance of LAMATA.



Key Learning

The setting up of LAMATA signalled the State Government’s intention to re-orientate the way in which transport services were managed and implemented. LAMATA has faced a number of challenges and has had to take steps to address risks to the organization. Exhibit 49 highlights the performance indicators of LAMATA.

Exhibit 49 Performance indicators of LAMATA

Performance Indicators of LAMATA	Reduction in expenditure on transport
	Increased satisfaction with public transport
	Decline in time spent by the poor on transport
	Positive impact on road and pedestrian safety, environmental and social issues
	Empowerment of beneficiaries through participatory processes

The key lessons from establishment of LAMATA for the cities in India planning to establish UMTA and UTF are summarised in Exhibit 50.

Exhibit 50 Key lessons from LAMATA

Key Initiatives/Challenges to Improve Urban Transport System by Lagos	Key learning for Indian Cities
Creation of a Metropolitan Transport Authority (LAMATA)	Creation of a metropolitan transport authority requires a commitment from the highest level of Government and a champion to further the cause of good management. A single agency with responsibility for all aspects of urban transport in a metropolitan area is seen to be necessary with consequent reallocation of the responsibilities of other agencies.
Composition of governing Board	One way to obtain buy-in for a new authority is for the Board to have representation from the Authority’s stakeholders - transport operators, transport unions, the organized private sector, the general public, local government, and transport related State Government agencies. However, the private/public sector mix is also important. Of the 13 LAMATA board members, seven are from the private sector and six are from the government, so there is a private sector majority. The Board reports to the State Governor not the State Commissioner for Transport.
Involvement of stakeholders The LAMATA Act recognizes the need to engage civil society in validating major infrastructure	The task of building and sustaining an efficient and effective transportation system in a metropolitan area calls for the active involvement of all stakeholders through information, consultation and participation in various consultative, interactive and participatory forums.

Key Initiatives/Challenges to Improve Urban Transport System by Lagos	Key learning for Indian Cities
investments and policy changes.	
Staff LAMATA has a secretariat of five units working under a Managing Director/CEO.	<p>Creating a board or committee by itself is not enough and should be supported by a technical team with strong management. This requires attracting the best skills and experience, creating a commercial culture and having incentive structures and mechanisms for accountability.</p>
Managing Change	<p>Resistance to change by agencies and organizations currently involved in transport operations and management has been one of the key challenges LAMATA has had to contend with. Examples include:</p> <ul style="list-style-type: none"> • it is taking some time for some agencies and institutions to appreciate the role and functions of LAMATA leading to the risk of duplication and overlap of efforts • transport operators in Lagos are well organized and led by iconic leaders, most of whom have a vested interest in the continuation of current methods for providing transport services, even if passengers continue to receive poor and unsafe services. <p>In response LAMATA has, at state level, initiated a forum for regular discussion and exchange of information amongst state agencies and other stakeholders involved in transport services and infrastructure provision (called inter-ministerial meetings). The key operational departments— roads, traffic management and public transport, hold regular bilateral discussions with other agencies directly involved in their activities. These discussions help to build trust and ensure that duplication or overlap of efforts is minimized. The leadership and support provided to LAMATA by the State Governor helps immeasurably towards developing harmonious relationships with state agencies.</p> <p>LAMATA has embarked on a publicity campaign designed to sensitize bus users on the benefits of reform for it is believed that passengers themselves can create conditions for a shift in the attitude and behaviour of operators. It is equally important to keep the current operators involved in discussions and not isolate them.</p>

Key Initiatives/Challenges to Improve Urban Transport System by Lagos	Key learning for Indian Cities
<p>Articulation of Vision, Mission, Objectives and Goals</p>	<p>The reorganization of urban transport service planning and delivery is a long-term process. It often requires legislative, institutional and management changes and a period of internalization and adjustment within organizations before the real impact of the new structures can be observed.</p> <p>The justification for LAMATA was first proposed over ten years ago and even now, after two years of operation, it is a nascent organization, requiring continued support and encouragement. Unrealistic timetables that do not allow for political processes, stakeholder consultations and the need to overcome organizational inertia are likely to be frustrating.</p> <p>LAMATA articulated its vision, mission, objectives and goals, identified its major challenges and critical success factors, and has put in place measures to address them. It has developed a 5-year plan and recognized the important need for self-sustainability particularly when World Bank credit becomes exhausted in two years' time.</p>
<p>Political Risks</p>	<p>The policy that led to the creation of LAMATA was developed and implemented within the term of the current political leadership in the State. Changes in leadership and the possibility of change in direction after planned elections next year cannot be ruled out.</p> <p>To negate any potential impact on LAMATA, steps are being undertaken to institutionalize the Authority. As an example, the public is regularly made aware of the successes achieved by LAMATA (through press and media) and educated on the effort necessary to achieve those successes. LAMATA believes that by continuing to be successful and thereby gaining public recognition of its success, its future will be assured whatever the political environment.</p>
<p>Relationship with Federal Government</p>	<p>A key issue faced by LAMATA concerns the relationship of the Federal Government with the State Government where, as a consequence of differences in political opinion, necessary cooperation was lacking.</p> <p>LAMATA has continued in its effort to build a strong relationship with the Federal Government by actively participating in its transport initiatives and thus demonstrating the desire to support</p>

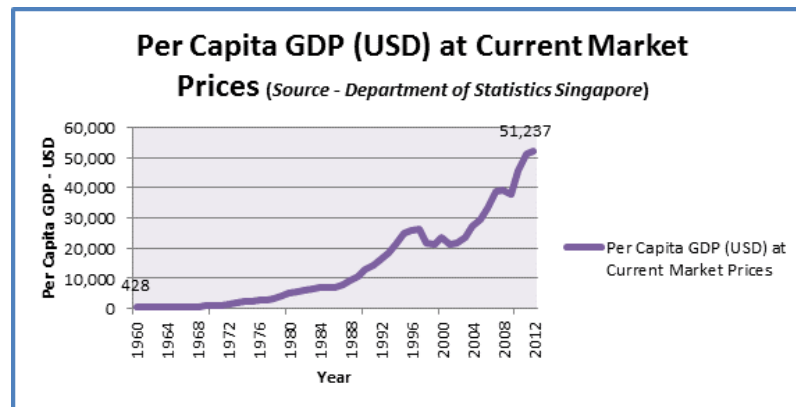
Key Initiatives/Challenges to Improve Urban Transport System by Lagos	Key learning for Indian Cities
	its objectives. As an example, LAMATA responds positively to requests for comments on legislation sponsored by the Federal Government to the extent that LAMATA is now regarded as a professionally run institution devoid of political influence.
Creation of dedicated Transport Fund	LAMATA has been created with a sustainable source of funding. It is important to provide a financial basis for a planning authority to carry its weight with other ministries or agencies. The source of funds should be clearly identified and secured in law.

ANNEXURE VIII – CASE STUDY OF SINGAPORE LTA

History and evolution

Singapore is an island city-state off the southern tip of the Malay Peninsula. The country is highly urbanized with very little primary rainforest remaining.

Exhibit 51 Singapore's per capita GDP (\$USD) at current market prices



Singapore has witnessed tremendous growth in both its population and economy in recent times. From around 1,000 people in the early 1800s its population has grown to more than 5 million people. As a result of the combined effect of the rising population and the high growth rate (refer Exhibit 51) in wealth of the citizens, the city nation experienced high growth in the number of private vehicles during the period from 1960 to the 1980s and to some extent beyond this period also.

Although there have been attempts at increasing the land available in the country by land reclamation projects, the total land available is limited and Singapore's boundaries cannot be significantly expanded, unlike some metropolitan cities in other parts of the world. Given this limited supply of land and simultaneous increase in the number people and private vehicles, the city nation experienced a number of problems related to transport and traffic such as excessive congestion on the roads especially during peak hours, increasing pollution and longer travel times. The road network in Singapore was not able to accommodate the increased volume of traffic as most of the roads were narrow and the city nation was faced with a huge demand for increase in urban transport infrastructure. However, building more and more roads or flyovers was considered to be not the only solution to the urban transport problem. Instead an integrated holistic approach was adopted.

Singapore had realized early in the national building process after independence from Britain that efficient urban transport is very necessary to support economic development. With this realization the government regularly undertook studies to identify urban transport issues and implemented measures to solve the issues. Today Singapore's urban transport system is one of the best in the world. The fact that Singapore has only one level of government is perhaps a very important factor in this transformation. This system of government is much simpler than the three levels of government that exists in Indian.

A brief description of the developments in urban transport in Singapore is given in the following paragraphs.

Before the 1970s

Singapore declared self-governance in 1959 and Independence from United Kingdom in 1963. During the period before 1963 there was no specific agency responsible for managing urban

transport. In 1938 a “Traffic Conditions Committee” was formed with an objective to consider the traffic conditions in the town of Singapore and make recommendations for their improvements²¹. During the initial years of independence the Singapore government did not give priority to transportation. But with rapid economic development and increasing population Singaporeans intended to own private vehicles whose numbers started increasing rapidly putting pressure on the available transport infrastructure. In 1968 the Ministry of Communications was formed when the importance of the transportation issue was formally acknowledged by the political leadership.

Between 1970s and 1990s

A brief list of developments in Singapore’s urban transport sector during the 1970s and 1980s is provided in Exhibit 52:²²

Exhibit 52 Developments in Singapore's urban transport sector

Year	Development during the Year
1970	<ul style="list-style-type: none"> • Government commissioned a comprehensive study of local transport from 1967 to 1971. • Drew up Singapore’s land transport master plan 1992 under the State and City Planning (SCP) project (1962-1975). • Road Transport Action Committee (RTAC) was set up to look into pre-empting traffic jams. • Merger of 10 Chinese bus companies to 3 regionally based groups. • Formation of NTUC Comfort Taxi Cooperative. • Introduction of diesel tax, one of several measures to eradicate pirate taxis. • First flyover built across Clemenceau Avenue.
1971	<ul style="list-style-type: none"> • Singapore Traction Company (STC) Bus Company ceases operation.
1972	<ul style="list-style-type: none"> • Supplementary Public Transport Service established to complement standard bus services, using school and private hire buses.
1973	<ul style="list-style-type: none"> • The 3 regionally based bus companies formed earlier merged to form Singapore Bus Service (SBS)
1974	<ul style="list-style-type: none"> • Government Team of Officials (GTO) appointed to help run SBS. • Taxi licences no longer transferable; new taxi licences only issued to Comfort.
1975	<ul style="list-style-type: none"> • The “user pays” system, Area Licensing Scheme (ALS) was introduced. • Park and Ride scheme introduced. • City Shuttle Service (CSS) Company set up to provide shuttle services from fringe car parks into restricted city zone. • Preferential Additional Registration Fee (PARF) introduced to encourage scrapping of cars more than 10 years old.
1976	<ul style="list-style-type: none"> • Park and Ride Scheme abandoned. • CSS extended to public housing estates.

²¹ Urban Transport Planning in Singapore, Chin Hoong Chor, Associate Professor, National University of Singapore

²² www.lta.gov.sg (Land Transport Authority – Our History)

Year	Development during the Year
1977	<ul style="list-style-type: none"> • Double-decker buses introduced.
1978	<ul style="list-style-type: none"> • SBS public-listed.
1981	<ul style="list-style-type: none"> • Comprehensive Traffic Study reports that an all-bus system is not practical and recommends a mass transit rail system. • Pan Island Expressway (PIE) opened to traffic. East Coast Parkway (ECP) completed. • Benjamin Sheares Bridge completed. • First computerised Area Traffic Control System for city area traffic signals.
1982	<ul style="list-style-type: none"> • Green light finally given to build MRT. • Taxis allowed to install radios; front-seat seat belts compulsory for taxis.
1983	<ul style="list-style-type: none"> • Trans-Island Bus Services (TIBS) Ltd began operations as Singapore's second public bus operator. • Singapore Bus Service (SBS) Taxi started operations.
1984	<ul style="list-style-type: none"> • Air-conditioned buses introduced on Singapore roads.
1985	<ul style="list-style-type: none"> • Most buses converted to one-man-operated fare collection system. • Bukit Timah Expressway (BTE) completed.
1987	<ul style="list-style-type: none"> • Incorporation of Singapore Mass Rapid Transit Ltd (SMRT), the private operator of the MRT system. • Public Transport Council (PTC) set up to regulate bus services and public transport fares. • First section of the MRT system is opened for service. Within 3 weeks, the millionth ride is recorded.
1988	<ul style="list-style-type: none"> • Ayer Rajah Expressway (AYE) completed.
1989	<ul style="list-style-type: none"> • TransitLink set up by SBS, SMRT and TIBS to develop an integrated bus-rail public transport system.
1990	<ul style="list-style-type: none"> • 67km of railway completed. • North-South and East-West MRT lines completed. • Vehicle Quota System (VQS) introduced bidding for COE.
1991	<ul style="list-style-type: none"> • TransitLink launches common stored value fare card for use on both bus and rail. • Central Expressway (CTE) became fully operational.
1994	<ul style="list-style-type: none"> • Off-Peak Car (OPC) scheme introduced.

The Singapore government has taken regular steps for improvement of urban transport, including:

- i. Measures addressing the supply side (directed at increasing urban transport capacity)
- ii. Measures aimed at managing the demand side (measures for reducing the demand for urban transport).

The initial focus of the government was on infrastructure development and as issues related to congestion and limited land availability were recognised, steps were taken to limit the growth in

vehicle population, while simultaneously developing public transport infrastructure and providing better public transport services.

Singapore has always focused on systematic planning and development. The need for integration and coordination in planning and operations was well understood as may be observed from merging of the bus operations of the 10 Chinese bus operating companies of varying fleet sizes into 3 major bus companies with clear territorial dominance in 1970. In 1973 these 3 companies were further merged to form a single entity – Singapore Bus Service (SBS). Later in 1982 a second bus company Trans-Island Bus Services (TIBS) was formed to introduce competition for SBS so as to ensure that efficiencies in bus operations are maintained.

Although with careful planning Singapore government was able to provide reliable and efficient public transport services to its citizens, gradually a need for a Mass Transit System (MRT) was recognized to cater for the increasing demand for public transport services and expected future requirements. The MRT system began operation in 1987 as part of an integrated public transport system.

During this period various problem driven schemes were also initiated to reduce congestion and limit vehicular growth. Some of these in brief are as follows:

Traffic Congestion Management

On recommendation of the Road Transport Action Committee (RTAC) in 1973 several initiatives were taken for traffic congestion management such as:

- (i) Staggered work hours for public servants
- (ii) Encouraging private companies to have flexible work hours
- (iii) Carpooling
- (iv) Area Licensing Scheme – The scheme was based on a "cordon" pricing system. The cordoned area, referred to as the "restricted zone," was demarcated by twenty-eight overhead gantry signs. During the restricted hours, private cars and taxis were required to buy and display a special area license on their windscreen to enter the restricted zone. The violators were heavily penalized.

Limiting Vehicle Growth

Since Singapore has limited supply of land, a need to put limitations on the number of vehicles was always felt necessary in planning for urban transport. Measures employed to limit the number of vehicles included:

- Increase in import duty on cars
- Introduction of an Additional Registration Fee (ARF) in 1972
- Revision of Annual Road Tax by vehicle class
- Introduction of a Preferential Additional Registration Fee (PARF) – to encourage private vehicle owners to replace old cars with new ones. In line with PARF, people replacing their cars that are less than 10 years old enjoy a PARF benefit.

Establishment of LTA

With time the Singapore government recognized the importance of integrated planning and development and eventually in 1995 the Land Transport Authority (LTA) was established as a statutory board under the Ministry of Communications merging four existing bodies - the Registry of Vehicles, Mass Rapid Transit Corporation, Roads and Transportation Division of the Public Works Department and the Land Transport Division of the Ministry of Communications. The basic purpose of LTA included the integration of the various organizations involved in planning, development and management of urban transport policies and urban infrastructure into a single and coordinated body to facilitate integrated planning and development.

This marked a shift from the problem driven planning approach to a visionary approach to develop Singapore into a world-class city with excellent infrastructure and transport facilities.

Following paragraphs provide details of scope (including functions and powers), legal basis, institutional arrangements, organizational structure, financing arrangements and performance of the LTA.

Functional scope of LTA

LTA's mission is "to provide an efficient and cost-effective land transport system for different needs" and its vision is "to create a people-centred land transport system."

The objectives of the LTA are:

- a) To deliver an effective land transport network that is integrated, efficient, cost effective and sustainable to meet the nation's transport needs.
- b) To plan, develop and manage Singapore's land transport system to support a quality environment while making optimal use of our transport resources and safeguarding the well-being of the travelling public.
- c) To develop and implement policies to encourage commuters to choose the most appropriate transport mode.

Functions and duties of the authority as reproduced from the Land Transport Authority of Singapore Act, are as follows:

- a) to plan, design, construct, manage and maintain roads in Singapore in accordance with the Act and the Street Works Act;
- b) to plan, design, construct, maintain and improve pedestrian walkways, bus stops or shelters, bus interchanges or terminals, taxi stands and other commuter facilities in accordance with the Act, the Street Works Act and any other written law;
- c) to maintain, operate and improve road traffic signs or signals, traffic control equipment or lighting equipment associated with a road and other road traffic facilities for the purposes of traffic management and control;
- d) to provide parking places for motor vehicles, to license and regulate the use of parking places and to administer the Parking Places Act;
- e) to develop and implement road traffic management strategies and practices;
- f) to provide registration and licensing procedures and systems for road transport in accordance with the Road Traffic Act;

- g) without prejudice to the Public Transport Council Act, to regulate the carriage of passengers on any road for hire or reward in accordance with the Road Traffic Act;
- h) to regulate the construction of motor vehicles and the conditions under which they may be used on roads in Singapore;
- i) to determine load limits for any road, bridge or culvert and to establish guidelines or requirements for the issue of vehicle mass and dimension permits;
- j) to promote better understanding of land transport policies and programmes, whether solely or jointly with other authorities or organisations;
- k) to plan, design, construct, manage, operate and maintain the railway in accordance with this Act and the Rapid Transit Systems Act;
- l) to approve and regulate the operation of the railway in accordance with the Act and the Rapid Transit Systems Act;
- m) to co-ordinate land transport services, including developing or promoting the development of integrated ticket systems;
- n) to conduct, or engage persons to conduct, research and demonstration projects in respect of land transport and associated matters, and to encourage, advise and otherwise assist (whether financially or otherwise) any such research or project;
- o) to advise the Government in respect of the land transport system in Singapore, including, but not limited to —
 - (i) its adequacy to meet national and community needs in an efficient, viable and safe manner;
 - (ii) changes considered advisable in the provision of finance for the control, construction, management or maintenance of the land transport system; and
 - (iii) changes considered advisable in the levying and collection of land transport taxation, including the granting or withdrawing of exemptions or partial exemptions from any form of land transport taxation;
- p) to maintain contact with land transport organisations in Singapore and abroad, in order to obtain, collect and exchange information relating to land transport developments in Singapore and abroad, and to make such information available to bodies and persons with an interest in land transport in Singapore;
- q) to represent Singapore internationally in respect of matters relating to land transport;
- r) to act as agent of the Government and provide service in administering, assessing, collecting and enforcing payment of —
 - (i) the special tax imposed under section 17 of the Customs Act;
 - (ii) the surcharge imposed under the Parking Places (Surcharge) Act;
 - (iii) the charge imposed pursuant to the Parking Places Act for the waiver of requirements imposed by or under that Act in relation to car parks;
 - (iv) the proposed sums of successful bids for particular index marks and registration numbers for any type or category of vehicle; and

- (v) all taxes, fees and charges collected by the Registrar of Vehicles under the Road Traffic Act or any rules made thereunder which are not specified in the Second Schedule;
- s) to act as agent of the Government in vesting of land under the Street Works Act;
- t) to collect, compile and analyse information of a statistical nature relating to land transport or such other subject-matter necessary for the performance of the functions of the Authority, and to publish and disseminate the results of any such compilation and analysis or abstracts of those results;
- u) to establish and maintain a Land Transport Revenue Account in accordance with the provisions of the Act;
- v) to undertake any other activity considered necessary or desirable to achieve a safe and efficient land transport system that maximises national economic and social benefits; and
- w) to perform such other functions as are conferred on the Authority by any other written law.

These functions and duties show that the LTA is responsible for overall management of all forms of land transport including road and rail transport and integration of all modes of transport. It is also responsible for development of all forms of related infrastructure facilities including bus stops, parking places, etc. LTA also is responsible for regulating the construction and use of motor vehicles in Singapore.

Therefore, it may be noted that the functions and duties of LTA encompasses integrated planning, designing, construction and management of infrastructure as well as regulating use. This is in contrast to the Indian system where there are multiple agencies which are involved in each of the above activities.

Legal basis for LTA

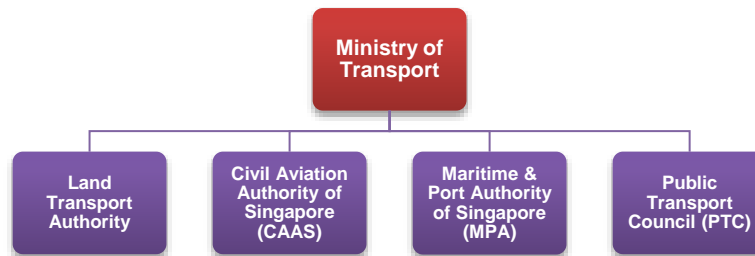
LTA was established as a body corporate (independent statutory authority) through the Land Transport Authority of Singapore Act 1995.

The Singapore Bus Service (SBS) was established as a Company, Trans Island Bus Services (TIBS) currently known as SMRT Buses was established as a company, and the Public Transport Council was established as a regulatory statutory board under the Ministry of Transport by the Public Transport Council Act of 1987.

Institutional arrangements

The LTA reports to the Minister of Transport supported by the Ministry of Transport (MoT). Currently, the MoT oversees four statutory boards as well as the LTA, as illustrated in Exhibit 53 Institutional arrangement of Ministry of Transport.

Exhibit 53 Institutional arrangement of Ministry of Transport



LTA is required to follow the policies and instructions applicable to statutory boards issued by The MoT and other government ministries and departments such as the Ministry of Finance (MoF).

LTA has the following subsidiary companies:

Transit Link – It is the exclusive transit merchant collector for Singapore's public transport system. It processes transit transactions for:

- Distance fares
- Bus stop distance refunds
- Park and ride sets
- Transport and concession pass vouchers

It also allocates revenue to the Public Transport Operators. In addition, it acts as an agent for card managers by providing card sales, refunds and replacements. As a master load agent, Transit Link provides transit top-up services for all card managers in Singapore. Transit Link was incorporated in November 1987 and became a subsidiary of the Land Transport Authority in April 2010.

EZ-LINK - Responsible for the sale, distribution and management of ez-Link cards, which can be used for public transport travel, as well as other commercial purposes and non-transit applications. It is a wholly owned subsidiary of the LTA and is regulated by the Monetary Authority of Singapore and the Public Transport Council. It was formed in January 2002.

MSI GLOBAL - The consultancy arm of the LTA, which provides multi-disciplinary consultancy for transport policies and strategies by tapping expertise from LTA. It has been a key consultant on issues and problems facing the government and policy makers of various countries, including:

- transportation planning
- project management and implementation
- rail systems engineering
- infrastructure management
- intelligent transport systems
- Demand management.

MSI Global was set up in February 1995 and is involved with projects in Southeast Asia, China and Europe.

LTA organisational structure

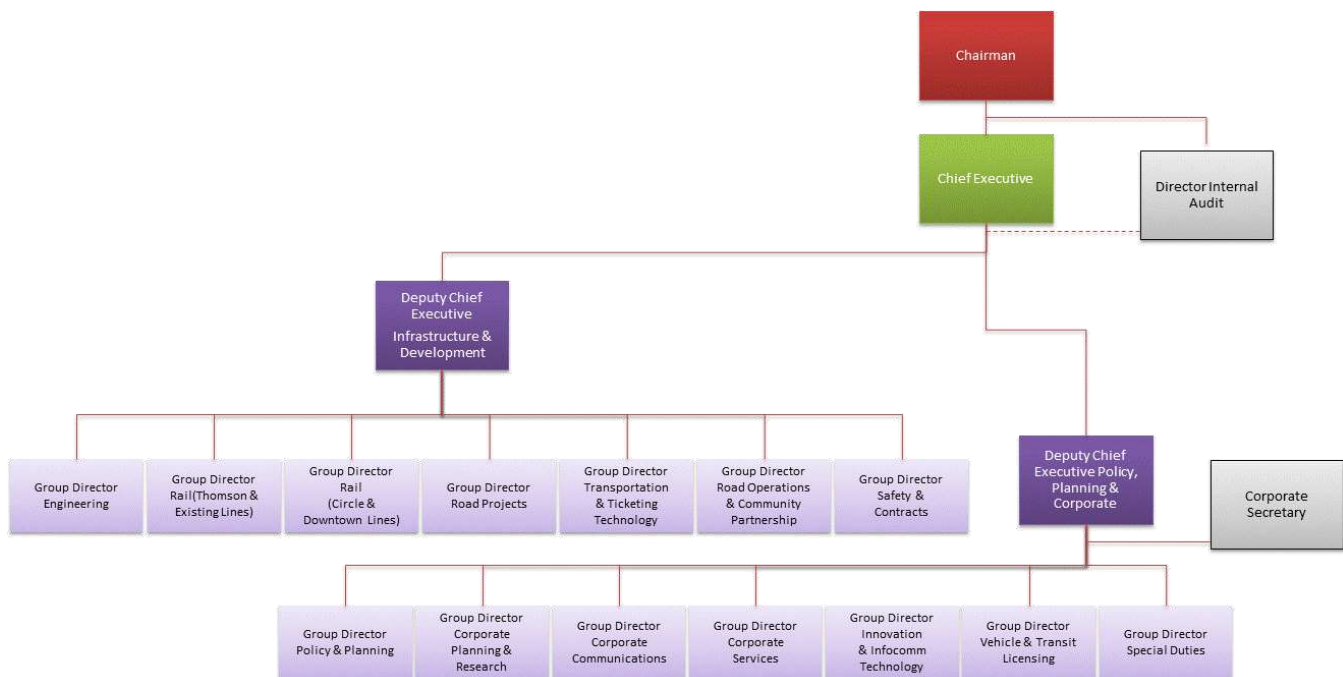
The LTA Act provides for a Chief Executive and staff.

The Chief Executive is appointed by the authority with approval of the Minister. The Minister may appoint the Chief Executive to be a member of the board. This Chief Executive reports directly to the chairman. The two Deputy Chief Executives are each responsible for functional areas of the organisation:

- Infrastructure and development
- Policy, planning and corporate services.

The organisation structure is shown in Exhibit 54.

Exhibit 54 Organisational Structure



Composition of the governing body

The LTA board consists of a chairman and at least 2 and at most 14 other members. The chairman and other members of the authority are appointed by the Minister from among persons who have had experience in public administration or matters relating to land transport.

Financing arrangements (source of revenue and utilisation)

FINANCING ARRANGEMENTS (SOURCE OF REVENUE AND UTILISATION)

The statutory functions of the LTA include establishing and maintaining a Land Transport Revenue Account. Sources of funds for this account are:

- a) all taxes, fees and charges as specified in the Second Schedule of the Act (these include fees for issue of different kinds of licences, registration of vehicle, inspection of vehicle, fees relating to road traffic etc.);
- b) all fees received by the authority for services rendered by the authority to any person, including any collection agency fee;

- c) all moneys derived from the disposal, lease, or hire of, or any other dealing with, any property vested in or acquired by the authority;
- d) all income derived from the investment of moneys in the Account, including any gains made on the sale of any investment of money of the Account, and interest or gains thereon;
- e) all moneys borrowed by the authority under the Act; and
- f) all other moneys lawfully received by the Authority for the purposes of the authority.

The LTA is responsible for managing and administering Land Transport Revenue Account, which may be used for:

- a) the remuneration, fees and allowances of the members of the authority;
- b) the salaries, fees, remuneration, pensions, superannuation allowances and gratuities of the officers, agents, employees, advisers and former employees of the authority;
- c) working and establishment expenses and expenditure on, or provision for, the maintenance of any of the property of the authority, and the discharge of the functions of the authority properly chargeable to revenue account;
- d) expenses incurred or incidental to the investment or management of moneys in the Account;
- e) interest on any loan raised by the authority;
- f) sums required to be paid to the Government towards repayment of any loan made by the Government to the authority;
- g) sums required to be transferred to a sinking fund or otherwise set aside for the purpose of making provision for the repayment of borrowed money;
- h) such sums as may be deemed appropriate to set aside in respect of depreciation or renewal of the property of the authority, having regard to the amount set aside out of revenue under paragraphs (c) and (f);
- i) the cost, or any portion thereof, of any new works, plant, vessels or appliances not being a renewal of the property of the authority, which the authority may determine to charge to revenue;
- j) such sums by way of contribution, for the purposes associated with the objects of this Act as the authority may determine, to the public or for charities; and
- k) any other expenditure authorised by the authority and properly chargeable to the revenue account.

The balance of the Land Transport Revenue Account may be applied to the creation of a general reserve and such other reserves as the authority may think fit.

For the purpose of capital investments required for projects such as construction of roads, railways etc. the LTA is provided funds from the Minister of Finance. The authority is also free to borrow money / raise loans from various agencies in or out of Singapore as it considers appropriate. Also apart from the purposes of capital investments the authority is also free to raise loans for other activities.

The authority is required to issue shares or other securities to the Minister of Finance if the Government vests property, rights or liabilities in the authority or provides capital injection or other investment in the authority.

The authority is responsible to ensure that the total revenues available to it are sufficient to meet its operational expenses from year to year.

Following table shows the items included in the sources of fund of the LTA as per its Annual report 2011-12. The major portion of funding can be seen to come from government in the form of management fee.

Urban Transport in Singapore is funded by various sources. LTA which plays an important role in urban transport accounts for some of these sources of funds, while some other sources of funds in Singapore such as Electronic road pricing are administered by LTA but are not accounted in its financial statements, rather these are deposited into the consolidated fund.

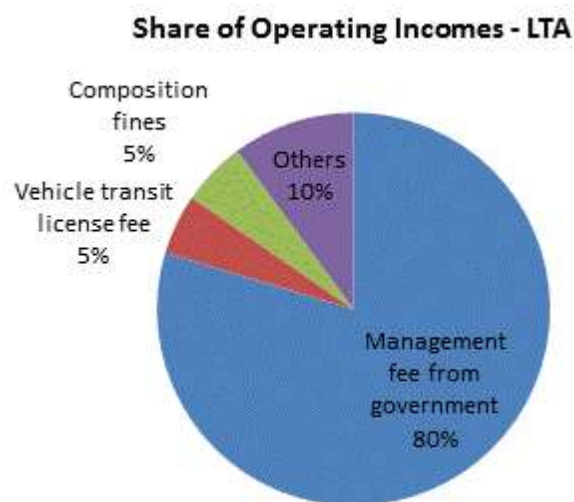
Funds reflecting the income sources to LTA are provided in following sub section. The other funding sources are provided in subsequent sections.

SOURCES OF OPERATING INCOME FOR LTA

Exhibit 55 Share of operating incomes-LTA

The major operating income sources for LTA are:

1. Management fee from government S\$ 450 m
2. Vehicle transit license fee – S\$ 28 m
3. Composition fines – S\$ 30 m
4. Others – S\$ 57 m



The total operating income in this way was around S\$ 565 m for FY 2012-13²³.

The sources of funds in Exhibit 55 are explained below:

Management fee from government

The authority receives management fee from government every year in lieu of discharge of its services. The annual amount is not fixed and over the years has increased.

Vehicle Transit Licensing Fee

The LTA act specifies that LTA is required ‘to provide registration and licensing procedures and systems for road transport in accordance with the Road Traffic Act’. The income generated from Vehicle Transit Licensing Fee corresponds to this function.

Composition fines

These represent the traffic penalties imposed on violators. Anyone who receives a traffic ticket or notice from the Traffic Police Department, Land Transport Authority, Housing and Development Board or Urban Redevelopment Authority in Singapore should pay a fine. This is referred to as

²³ Annual Report 2012-13

settling the fine by way of offer of composition (the fine amount).

OTHER FUNDING SOURCES

Collection of Government taxes, fees and charges

The LTA acts as an agent of the government and provides services in administering, assessing, collecting and enforcing payment of various Government taxes, fees and charges such as Additional registration fees, Vehicle Quota Premium, Road Tax and Electronic Road Pricing charges. These are paid into the Government Consolidated Fund and are not reflected in the Authority's financial statements. These are provided below:

Additional registration fees

When purchasing a new vehicle additional registration fees are payable which are applied on the Open Market Value of the vehicle. These are applicable in slabs like the Indian Income tax system.

Vehicle Quota Premium

The Vehicle Quota System (VQS) regulates the rate of growth of vehicles in Singapore. LTA controls the number of new vehicles allowed for registration. Anyone who wishes to register a new vehicle in Singapore should first obtain a Certificate of Entitlement (COE), which represents the right to own a vehicle for 10 years. To obtain such COE, a quota premium is payable.

Vehicle Quota Premiums, i.e. receipts from Certificates of Entitlement (COE), were estimated to be \$2.8 billion for the financial year 2012-13. In FY 2011 these were \$2.11 billion²⁴.

Road Tax

All Singapore registered vehicle must always pay a Road Tax as applicable time to time. Motor Vehicle Taxes collected in FY 2011 were \$ 1.92 billion.²⁵

Electronic Road Pricing (ERP)

The Electronic Road Pricing (ERP) system is an electronic toll collection scheme to manage traffic by way of road pricing. The system uses open road tolling, vehicles do not stop or slow down to pay tolls. The capital cost of the ERP system, since its inception in September 1998 was S\$197 million and incurred an annual operational and maintenance cost of S\$25 million for 66 control gantries (in 2009). The program's annual revenue was estimated at S\$144 million in 2008-09²⁶.

Fare Box Collections

These go into the accounts of the operators who use them to fund their operating costs. There are following two main public transport operators in Singapore:

²⁴ Fiscal Update on Financial Year 2012 - <http://www.singaporebudget.gov.sg>

²⁵ Fiscal Update on Financial Year 2012 - <http://www.singaporebudget.gov.sg>

²⁶ Electronic Road Pricing: Experience & Lessons from Singapore Prof. Gopinath Menon, Dr. Sarath Guttikunda,

January, 2010

SMRT Corporation Ltd

The Group is in the business of providing transport services through the operation of the Mass Rapid Transit (MRT) and Light Rapid Transit (LRT) systems, buses, as well as the rental of taxis. In addition, the Group leases commercial and advertising spaces within the transport network it operates and engages in operations and maintenance services, project management and engineering consultancy in Singapore and overseas.

The Group revenue was \$1.1 billion in FY2012-13. These comprised of:

- a) Fare Revenue – \$ 842.5 m
- b) Non Fare Revenue – \$ 276.8 m (includes rental, advertising, engineering & other services etc.)

The total operating expenses were \$1.05 billion in FY2013 (included staff, depreciation, energy etc.).

Capital expenditures in Singapore are incurred by the operators and SMRT's capital expenditure for 2012-13 was \$266m (mainly to expand the taxi and bus fleet, and the purchase of rail operating equipment).

SBS²⁷

The SBS Group operates in public transport in following segments:

- Bus: Income is generated substantially through bus fare collections.
- Rail: Income is generated substantially through rail fare collections.
- Advertisements: Income is generated through advertisements on the buses, trains and at Mass Rapid Transit ("MRT") and Light Rail Transit ("LRT") stations.
- Rental: Income is generated through rental collections from commercial and shop space at bus interchanges and rail stations.

The total revenue for the FY 2012 was \$792.3 million. Like SMRT, SBS bus also invests in developing the capital infrastructure.

MANAGEMENT OF FUNDS

The funds of LTA are managed by the LTA. The funds of LTA are general accounting mechanism just like a corporate entity in India or anywhere in the world. The funds are properly managed by careful strategic planning by the authority.

The revenues collected from Electronic road pricing, vehicle quota premium etc. are deposited into consolidated fund.

The operators maintain their own finances and both SMRT and SBS are able to achieve a positive operating profit.

Current performance

Initiatives implemented

A list of developments that have taken place in urban transport in Singapore during the tenure of the LTA is provided in Exhibit 56 below:

²⁷ SBS Transit - Annual Report 2012

Exhibit 56 developments in Singapore's urban transport during the LTA tenure

Year	Development during the Year
1995	<ul style="list-style-type: none"> • Land Transport Authority (LTA) formed. • Road Pricing Scheme (RPS) starts along East Coast Parkway.
1996	<ul style="list-style-type: none"> • MRT extension to Woodlands opened for service. • Tampines Expressway completed.
1998	<ul style="list-style-type: none"> • Electronic Road Pricing (ERP) implemented.
1999	<ul style="list-style-type: none"> • LTA awarded North East Line (NEL) operating licence to SBS. • First Light Railway Transit (LRT) in Singapore began operation in Bukit Panjang.
2000	<ul style="list-style-type: none"> • First appearance of TV Mobile on buses. • Green Vehicle tax rebates introduced.
2002	<ul style="list-style-type: none"> • Contactless EZ-Link cards replaced magnetic fare cards. • KPE opened for use. • Changi Airport MRT station commenced operations. • Singapore's 1st air-conditioned bus interchange opened at Toa Payoh. • 5 older MRT stations upgraded with disabled-friendly facilities.
2003	<ul style="list-style-type: none"> • North-East Line, Asia's first fully automated underground system opened. • Quality of Service (QoS) standards introduced for taxi companies.
2005	<ul style="list-style-type: none"> • The 10.3 km 15-station Punggol LRT opened, providing residents with quick access to NEL.
2006	<ul style="list-style-type: none"> • A total of nine wheelchair-accessible bus services were launched to cater to commuters with special mobility needs. • LTA Academy was established to share Singapore's experience and expertise in land transport and to promote the research and exchange of best practices within the global land transport community.
2007	<ul style="list-style-type: none"> • Full Day Bus Lane Scheme launched. • LTA and Traffic Police win the prestigious Prince Michael Safety Award global award for road safety). • Opening of the Fort Canning Tunnel. • Launch of the LTA Cares Fund to cater to the transport needs of financially and physically disadvantaged working adults and students.
2008	<ul style="list-style-type: none"> • Launch of the Land Transport Master Plan, to guide land transport development over the next 15 years. • Introduction of Mandatory Give Way to Buses scheme to enhance effectiveness of bus priority measures. • Launch of PublicTransport@SG portal to provide comprehensive public transport information for commuters. • Opening of five Circle Line stations from Bartley to Marymount.

Year	Development during the Year
2010	<ul style="list-style-type: none"> • Launch of Revised Off-Peak Car (OPC) scheme which allows motorists to enjoy more perks such as unrestricted usage of OPCs on Saturdays and on the eve of five public holidays. • Opening of 11 Circle Line stations from Dhoby Ghaut to Paya Lebar.
2011	<ul style="list-style-type: none"> • LTA presented with the Edmund R. Ricker Transportation Safety Council Award (Organisation) in St. Louis, Missouri for its efforts in improving safety for road users in Singapore. • Circle Line reached full operation in October. • Launched electric vehicle test bed. • Completed Barrier Free Accessibility Enhancement • Construction started for Southeast Asia's First Ecological Corridor, Eco-Link@BKE to link two nature reserves across the expressway.

Integrated planning

Singapore suffers from the disadvantage of limited availability of land. The norm for metropolitan areas indicates that almost 12% to 13% of urban land is taken up by roads and other infrastructure. Singapore had already reached this figure, which implies that it has reached the limit of land utilization for transport infrastructure. Therefore, it becomes imperative that land-use planners and transport planners work in an integrated fashion keeping in mind the constraint of land. This integration has had other obvious and very significant advantages as well, including better planning, better quality of service to citizens, cost effective solutions, etc.

Singapore uses an integrated approach to planning starting with a Concept Plan, which is the “big picture” that maps out Singapore’s long-term physical development. A Development Master Plan is then prepared, which translates the vision and broad development strategies of the Concept Plan for implementation in the medium term, together with a supporting Transport Master Plan. There is a conscious effort to integrate the transport networks and land-use, both in terms of planning and implementation. This involves planning well in advance for high density developments at and around major transport nodes such as Mass Rapid Transit (MRT) stations and bus interchanges. Attention is also paid to achieve a high level of integration across the various transport modes at these nodes. This helps to facilitate seamless travel by commuters and encourage public transport use.

At the same time, land-use policies are developed covering all modes of transport to meet the mobility needs of the people while maintaining the liveability of Singapore’s urban environment. A holistic package of measures to enhance the integration of public transport, manage road use and cater for the diverse needs of people is adopted.

LTA has constantly worked to ensure integrated planning, operations and management of urban transport. Townships have been developed so as to ensure that work places and residential places are nearby and the need for transportation is minimized.

Strategic transport plans

Following its formation in September 1995, the LTA represented a set of goals and an action plan on land transport for Singapore to 2010. This embodied a vision oriented approach to transport

planning and management rather than a problem driven approach. Transport planning has been rational and strategic and the nation has been very successful in making its urban transport system world class. The developments of MRT, LRT, bus services, vehicle population management, congestion management, integration with land-use planning all reflect the integrated approach to strategic planning. It can be argued that all this was achieved because the Authority has been granted all functions related to planning and management of urban transport and all necessary powers to perform the functions.

Integrated transport system

Singapore learnt in the early years the importance of integration within the transport system when inefficiencies were clearly manifested in poor coordination among different public transport operators, among different transport modes of service and among agencies involved in the decision making process. LTA has applied this concept of integration to the agencies that plan, manage or operate urban transport services.

The introduction of the MRT service provided a quantum increase in Singapore’s public transport capacity at the end of the 1980s. To minimise overall wastage, it was necessary to redeploy transport resources on a national basis. Being more flexible in operations, naturally the bus services were the target of redeployment even though they had the major market share before the MRT era. One option was to allow the bus operators and MRT to compete on a free-market basis. However, the government was concerned that this would lead to operators concentrating only on profitable routes and creating highly non-uniform levels of service. The strategy considered as the best for all was one of an integrated public transport system. This meant that the various transport operators should plan their system and market it as a single entity. Currently, in Singapore there is the MRT system, which serves the needs of longer and faster trips, supplemented by the LRT and bus systems, which support the need of shorter trips and cover the regions not directly serviced by MRT.

As a result of integrated planning and management of urban transport, the city nation of Singapore has a world class, high quality transportation system. Congestion is greatly reduced in spite of growth in vehicular numbers and the constraint of limited land. The public transport system is both operationally and financially efficient and is sustainable in the long term.

Lessons for Indian cities

The key lessons from Singapore for the cities in India planning to establish UMTA and UTF are summarised in Exhibit 57.

Exhibit 57 Lessons for Indian cities

Key Initiatives/Challenges to Improve Urban Transport System	Key learning for Indian Cities
Single authority	LTA was established as a statutory board solely responsible for integrated planning and development, overall management of all forms of land transport including rail transport.

Key Initiatives/Challenges to Improve Urban Transport System	Key learning for Indian Cities
Integration of public transport services	LTA was established by merging four existing bodies i.e. Registry of Vehicles, Mass rapid Transit Corporation, Roads and Transportation Division of the Public works department and Land Transport Division of Ministry of Communications, thus becoming an umbrella entity for transport. Any other authority which was earlier in charge of certain segments of transportation was divested of this power to ensure no overlap of functions.
Composition of governing body	LTA is an independent statutory authority which has a chief executive and at least 2 other members being appointed by the Minister of Transport on the grounds of professional expertise in the sector.
Planning and programming	The arrangement of a “Constellation Plan” for the new towns and connecting the residents to older areas outside their residence. Incorporating for new structures like residences is key to better planning.
Involvement of civil society is absent and lack of accountability to citizens	Although the LTA comprises of industry experts it does not include the key beneficiaries that is the local public in its board. Representatives of civil society are needed not only for holding the LTA accountable to their demands but also to structure plans based on actual utility and not perceived utility.
Articulation of vision, mission, objectives and goals	A move away from a problem solving approach to a vision oriented approach, with there being a list of goals to be achieved. However it should be noted that these two approaches are not mutually exclusive, a vision oriented approach should be a solution to the problems being faced. Integrated planning should be a
Funding that limits Vehicle Growth	Manage road use by implementing fees and controls that reflect the true cost of automobile use: Singapore has reduced its annual vehicle population growth from 6% fifteen years ago to 3% today though fees and surtaxes that add as much as 150% to a car’s open market value and through other mechanisms such as congestion pricing, vehicle quotas, etc. and institute real-time electronic road pricing (ERP) to force motorists to internalize the externalities they impose in using their cars during peak hours .The whole

Key Initiatives/Challenges to Improve Urban Transport System	Key learning for Indian Cities
	policy of reducing private vehicle use has a positive feedback on existing public transport systems.

ANNEXURE IX – INDICATIVE STAFF REQUIREMENTS IN UMTA SECRETARIAT

Division	Scenario I: All functions are performed in-house				Scenario II: Some functions are outsourced				Remarks
	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	
TRANSPORT PLANNING DIVISION	1 (CEO)	1	2	24	1 (CEO)	1	2	14	<p>The core functions of this division such as preparing sustainable urban transport policies, advising the State Government on urban transport matters, and monitoring compliance of implementing agencies with the CMP, will be carried out internally.</p> <p>The function of preparation of CMP and other transport plans will be outsourced to technical consultants with expertise in this function.</p>
PUBLIC TRANSPORT MANAGEMENT DIVISION		1	2			1	2		

Division	Scenario I: All functions are performed in-house				Scenario II: Some functions are outsourced				Remarks
	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	
									public transport services, implementation of any integrated multi-modal transport system (e.g. common ticketing system).
TRAFFIC MANAGEMENT DIVISION		1	1			1	1		The core function of overseeing operation of command and control centre would be performed internally by this division. However, the function of implementation of intelligent traffic management system and parking management would be outsourced.
FUND MANAGEMENT DIVISION		1	3			1	2		The core function of approving funding for urban transport projects would be performed by the FMD itself. However, other functions of FMD such as preparation of annual financial statements, internal audit of UTF funds, and monitoring of fund utilization by implementing agencies, may be performed internally, or be outsourced. Accordingly, the number of staff required in this division would change.

Division	Scenario I: All functions are performed in-house				Scenario II: Some functions are outsourced				Remarks
	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	TOP MGT	SENIOR MGT	JUNIOR MGT	SUPPORT STAFF	
CORPORATE SERVICE DIVISION		1	2			1	2		The core HR and administrative functions will be performed by this division on its own, while IT related functions may be outsourced to IT vendors, with expertise in this field. Depending on whether the IT related functions are performed in-house or are outsourced, the requirement of staff would vary. The core function of providing inputs to the governments in policy formation would be carried out by this division on its own. However, functions such as conducting capacity building programs and conducting research studies on innovative sustainable transport solutions would be outsourced.
POLICY AND TECHNICAL SUPPORT DIVISION		1	2			1	1		
Total	1	6	12	24	1	6	9	14	
Gross Salary (Rs. / month)	2.9 lacs	2.5 lacs	1.5 lacs	0.5 lacs	2.9 lacs	2.5 lacs	1.5 lacs	0.5 lacs	
Amount of salaries (in Rs.)	2.9 lacs	15 lacs	18 lacs	12 lacs	2.9 lacs	15 lacs	13.5 lacs	7 lacs	

Division	Scenario I: All functions are performed in-house				Scenario II: Some functions are outsourced				Remarks
	<i>TOP MGT</i>	<i>SENIOR MGT</i>	<i>JUNIOR MGT</i>	<i>SUPPORT STAFF</i>	<i>TOP MGT</i>	<i>SENIOR MGT</i>	<i>JUNIOR MGT</i>	<i>SUPPORT STAFF</i>	
Total monthly cost on salaries (in Rs.)	47.9 lacs				38.4 lacs				



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