



Urban Pathways

factsheet

Transport Authorities and Institutional Set-up



**Wuppertal
Institut**

UN HABITAT
FOR A BETTER URBAN FUTURE

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The Urban Pathways project helps to deliver on the Paris Agreement and the NDCs in the context of the New Urban Agenda and the Sustainable Development Goals. It has established a facility in close cooperation with other organisations and networks active in this area to support national and local governments to develop action plans and concrete implementation measures to boost low-carbon urban development. This builds on UN-Habitat's role as "a focal point on sustainable urbanisation and human settlements including in the implementation and follow-up and review of the New Urban Agenda". The project develops national action plans and local implementation concepts in key emerging economies with a high mitigation potential. The local implementation concepts are being developed into bankable projects, focusing on the access to urban basic services to create a direct link between climate change mitigation and sustainable development goals.

The project follows a structured approach to boost Low Carbon Plans for urban mobility, energy and waste management services that deliver on the Paris Agreement and the New Urban Agenda. The project works on concrete steps towards a maximum impact with regards to the contribution of urban basic services (mobility, energy and waste management) in cities to global climate change mitigation efforts and sustainable and inclusive urban development. This project makes an active contribution to achieve global climate change targets to a 1.5°C stabilisation pathway by unlocking the global emission reduction potential of urban energy, transport and resource sectors. The project will contribute to a direct emission reduction in the pilot and outreach countries, which will trigger a longer term emission reduction with the aim to replicate this regionally and globally to make a substantial contribution to the overall emission reduction potential.

This project implements integrated urban services solutions as proposed in the New Urban Agenda providing access to jobs and public services in urban areas, contributing to equality and social coherence and deliver on the Paris Agreement and the Sustainable Development Goals. This is the first dedicated implementation action oriented project, led by UN-Habitat to deliver on inclusive, low-carbon urban services. Securing sustainability and multiplier effect, the project aims to leverage domestic and international funding for the implementation projects that will follow from this initiative.

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Project concept

Project aims

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In brief

The governance of low-carbon urban mobility is critically dependant on how well the relevant transport authorities are structured, how clearly their roles are defined and the nature of their institutional vision (i.e their goals, aims and working principles etc.). The delivery of adequate, efficient, safe and comfortable urban mobility services to all citizens is a complex undertaking.

The first requirement is the regulation and coordination of individual operators of multiple transit systems – Metrorail, Bus Rapid Transit (BRT), conventional bus-based services, shared bicycles, informal Intermediate Public Transport (IPT) like rickshaws, etc. by the primary transport agency. This also includes city agencies managing physical infrastructure, such as roads, bus or bicycle lanes, sidewalks, pedestrian crossings, traffic enforcement, signalling and monitoring. Secondly, integration of the city's transport planning with land-use planning at urban or metropolitan scale requires collaboration within and between any authorities responsible for urban development. Thirdly, while managing the existing urban mobility system, the transport authority also needs to anticipate and forecast future transportation demands and accordingly plan and execute public transport projects. Finally, the transport agency is also required to procure adequate funding from a range of sources.

An ideal transport authority can be described as one which efficiently performs all of the aforementioned roles, while being legislatively empowered through an institutional framework to act independently. The following sections elaborate the characteristics of an effective transport authority and an optimal institutional structure for low-carbon mobility. This is illustrated by a case-study of the Land Transport Authority (LTA) in Singapore, along with two additional examples: Transport for London (TfL) in London, and the model of Urban Metropolitan Transport Authority (UMTA), which is currently in being instituted in several large cities in India.

Examples

In addition to collaborative and regulatory challenges, a typical transport authority is also faced with the responsibility of clearly defining the scope of its operations. This is particularly important, since providing urban mobility entails a wide range of functions.

In brief

Examples

The success of a transport agency depends, to a large extent, on the effectiveness with which it is able to manage each of these tasks.

The functions of an urban transport authority can be classified as follows. (a) strategic: long-term planning functions, policy formulation, establishment of an organisational vision, missions and values, capital financing; (b) tactical: planning of transportation services (demand assessment, inter-modal coordination, network and route design, planning of physical infrastructure (stations, bus or bike lanes, etc.), regulation (fixation of fares, issuing of driving permits, licences, vehicle registration, etc.), traffic management and enforcement; and (c) operational: construction and maintenance of infrastructure, day-to-day operations and monitoring of public transport systems, emergency response, etc. (Kumar and Agarwal, 2013; Swamy, 2015).

The effectiveness of a transport authority depends on which category of tasks it chooses to perform and its legal mandate with respect to multiple tiers of government. Since in most cities there is not a single public organisation responsible for all the aforementioned functions, the resulting institutional structure is often highly fragmented and unable to cope with high demand. In cities where there is considerable overlap of responsibilities, this may trigger organisational 'turf-wars', hampering efficiency. Additionally, certain functions (should) also span multiple geographic jurisdictions, especially in cities with large metropolitan areas and urban conurbations.

To counter this situation, successful cities are increasingly adopting a management model centred on a 'lead agency' with comprehensive responsibility for transport governance. Towards this, it is beneficial to differentiate the role of the lead agency as that of a 'service planner' encompassing the strategic and tactical functions, and that of a 'service provider', which comprises of the operational responsibilities. The decision of where a particular agency positions itself along this spectrum depends on its finances, working capacity, the size of the city and the scale of operations.

As evidenced by successful cases such as LTA and TfL, there is a trend of contracting service provision to private-sector operators based on competitive bidding. The planning and coordination tasks are retained and managed by the lead agency, considering (or focussing on) social welfare for the long-term (Kumar and Agarwal, 2013). For example, metro-rail

and bus services in Singapore are operated by private companies, while in London, public transport operations are carried out by subsidiaries of TfL. The formulation of policy is generally undertaken by the local or state government, which the transport authority is then tasked with implementing. Here, the authority also acts as an interface between the local government (e.g., the municipality) and the operators (Meakin, 2004).



Results

A robust institutional structure with a well-organised transport authority can lead to a multitude of direct and indirect benefits for the city:

- Integration of a multi-modal network and fare structure across diverse public transport modes and operators, making intermodal transfers convenient and fast. This could potentially lead to better accessibility, higher modal shares for transit options, less dependence on private vehicles and reduction of overall CO2 emissions from the transport sector.
- Improved level of service, demand management and city-wide coverage of public transport.
- Increased accountability of the municipal planning processes, such as National Urban Mobility Plans (NUMPs) and local Sustainable Urban Mobility Plans (SUMPs).
- Unlocking infrastructural investments from diverse and, at times, unconventional sources: higher levels of government, development banks, bilateral funds, CSR, etc.
- Efficient financial management and budgeting.
- Improved regulation of informal services and better management of transitions to newer forms of mobility, e.g app-based ride-sharing, electric and autonomous vehicles, driverless cars, etc.
- Enhanced public awareness and political support through better communication and campaigns.
- Better data collection and dissemination.

Results

- Proactive engagement with the private sector and start-ups for sectoral innovation.

Financial considerations

As with other public agencies, the effectiveness of a transport authority depends on the degree of its autonomy to procure adequate finances and utilise them to deliver mobility services. Typical sources of financing include transfers from one or more levels of government (municipal, state or national), and revenue from services, taxes and subsidies.

London's TfL receives its grants from the UK Department of Transport primarily, which is further divided into two components: (a) a grant to finance TfL's investment programme, and (b) a general grant to manage operations and administration. Similarly, for Singapore's LTA, the national Ministry of Transport government funds both the capital costs (through grants) and the operational costs (through a 'management fee'). The LTA also covers its finances through the revenues it collects through vehicle registration fees, congestion charges, fines and advertising (Kumar and Agarwal, 2013).

Policy/legislation

There are several legislative processes through which a transport authority could be established within a city. The first method consists of a mandate from the national or local government transport policy, while the second occurs through a special act, specifically legislated for the purpose of establishing an independent entity. Both LTA and TfL were established using the latter process. A special act not only empowers the authority with autonomous decision-making for its jurisdiction, but also reduces the overall bureaucracy for its administration (Kumar and Agarwal, 2013).

Alternatively, a transport agency could also be formed either on the basis of a Memorandum of Understanding (MoU), an executive order or a mutual agreement between multiple local governments, such as municipalities or metropolitan planning authorities. Finally, the transport authority could also be in the form of a Special Purpose Vehicle (SPV), an independent state-owned enterprise agency almost akin to a private corporation headed by public officials. An SPV is generally established through local government legislation.

Financial considerations

Policy/legislation

A successful example of national policy resulting in the founding of transport authorities in multiple cities is that of the Urban Metropolitan Transport Authority (UMTA) in India. The formation of an UMTA in each Indian city with a population over 1 million was mandated by the National Urban Transport Policy (NUTP) of 2014, marking a paradigm-shift in the country's urban transport governance. These agencies are expected to coordinate all local transport agencies and undertake all strategic functions.

The NUTP has also assigned the UMTAs the role of channelling and disbursing funds granted under various national programmes at the metropolitan level. This provides the UMTAs with significant autonomy and makes them key decision-making bodies. Additional functions of the UMTAs include formulating transport policy, regulating operators, multimodal integration, traffic engineering and management, as well as capacity building of municipal staff (Gupta, 2013). Since the legislation of the NUTP, several Indian cities, such as Hyderabad, Chennai, Bangalore, Mysore and Kochi, have successfully formed their respective UMTAs.

Institutional considerations

The institutional structure of a transport authority has significant implications on the delivery of low-carbon urban transport. A transport organisation is typically governed by a managerial board along with a Director and/or a Chief Executive Officer (CEO) who is accountable to the board. The board is also supported by a secretariat which may also act as the executive body. Alternatively, there may also exist subsidiary agencies of the main authority, which are tasked with executive functions.

For instance, the TfL is governed by a board consisting of 15 members. It is chaired by the Mayor of London while the Deputy Mayor acts as the deputy-chair. The fact that the Mayor is at the apex of this structure has tremendous implications for TfL's autonomy, and helps it to overcome decision-making challenges. This was observed during the approval of congestion charging for London (TfL, 2017). The TfL Board supervises the secretariat, which is led by the Commissioner for Transport and it manages 24 subsidiary agencies. Each of the subsidiaries are responsible for a mode (such as underground, regional rail, bus services, etc.) or a specific transport hub. Similarly, Sing-

Institutional considerations

gapore's LTA has a 15-person board. The CEO leads the secretariat, which is further divided into three executive groups, namely, Infrastructure and Development, Public Transport Policy and Planning, and Corporate (LTA, n.d.). Each of these are headed by their respective directors and assistant technical staff.

Transferability

The establishment and management of a competent transport authority is highly applicable to small and mid-scale cities with high rates of urbanisation. Where a dedicated agency to manage all transport-related matters does not exist, the lessons from TfL and LTA provide a strong case for the formation of a similar entity. These examples could also advise cities that intend to restructure the transport department within their municipalities, in order to scale it up as an independent entity. Moreover, for large, developing cities with sprawling and unwieldy institutional structures, these best practices could offer a procedure by which to consolidate their transport-related operations under a visible and legislatively-empowered umbrella organisation. Furthermore, for growing metropolitan areas with a fragmented jurisdictional landscape, the examples presented here offer lessons on how to form a cross-cutting agency to unify all their regional or provincial transport measures.

Context

In post-independence, early 1970s Singapore, public transport was of low quality, had poor coverage and was mostly managed by small operators within a highly fragmented market (Bin and Ching, 2013). This situation improved in the 1980s with the privatisation of Singapore Bus Services (SBS), one the largest transport companies, and the decision to implement the MRT (Mass Rapid Transit) system. However, in the 1990s, even with these efforts, issues around affordability, profitability, integration and regulation prevailed.

To address this, the LTA was established in 1995 by the merger of four public agencies – the Roads and Transportation Division of the Public Works Department, the Land Transport Division of the Ministry of Transport, the Mass Rapid Transit Corporation, and

Transferability

Land Transport Authority (LTA), Singapore

the Registry of Vehicles (Kumar and Agarwal, 2013). This marked an exemplary effort to create an umbrella organisation to regulate all operators and consolidate all transport-related functions. This was accompanied by the landmark 1996 White Paper on Land Transport, which ambitiously aimed to achieve a 75% modal share for public transport.

In action

In 2006, the LTA reformed the 1996 transport policy, resulting in the 2008 Land Transport Masterplan including a wide range of solutions for the next 15 years. Some of the measures which have since been successfully implemented include (a) bus-route rationalisation to integrate transfers with the MRT system and increase the financial viability of routes, (b) extensive capital investment to construct new lines based on financial viability assessments at the network level, (c) increased subsidies for bus operations along with physical infrastructure (amounting to US\$730 million in 2012), and (d) enhanced incident management prescribed by a framework of exercises and undertaking surprise checks of operators, and (d) investment of US\$240 million to improve walkability by providing sheltered walkways in station areas (Bin and Ching, 2013).

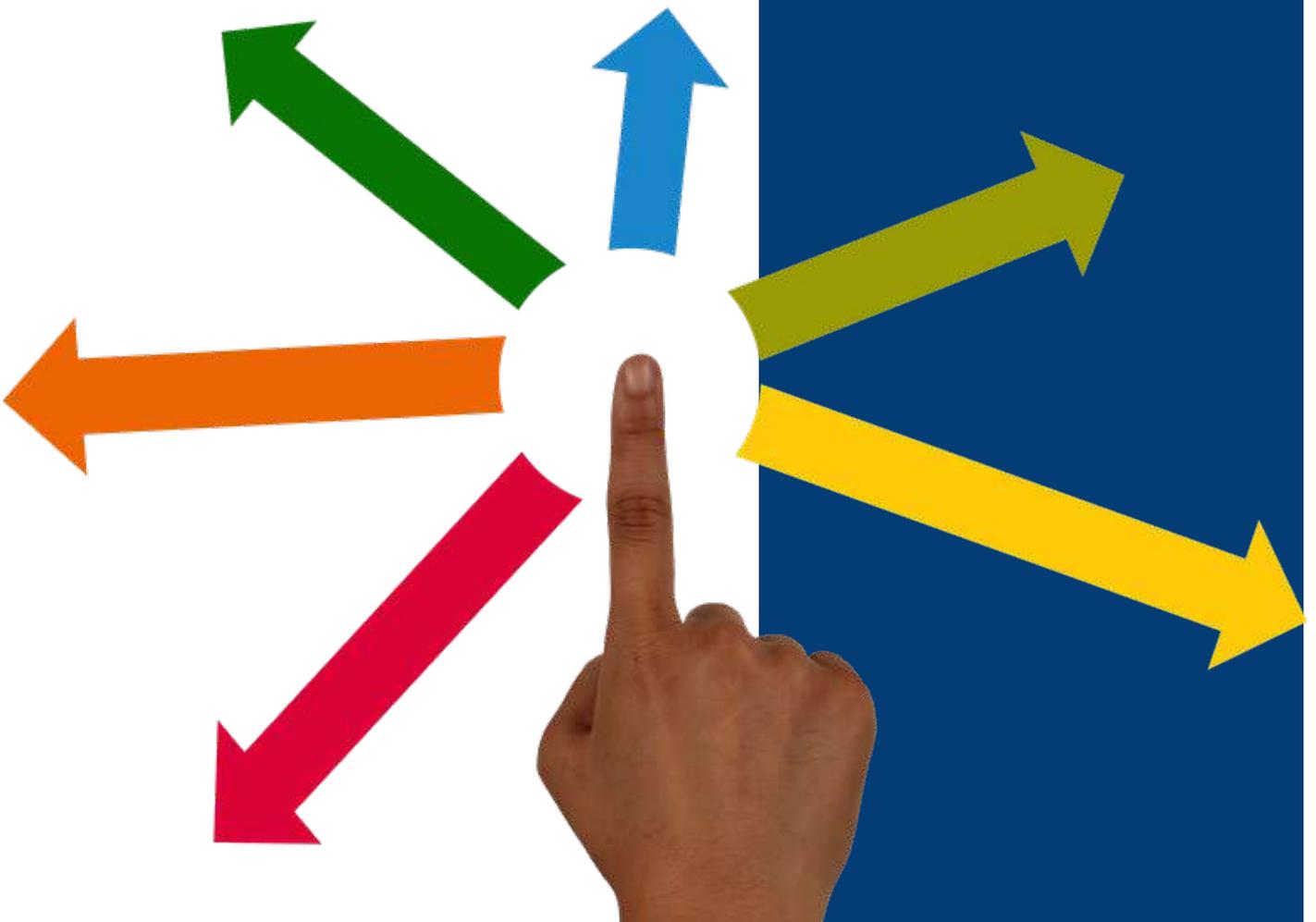
In action



Results

Owing to LTA's efforts, Singapore's public transport mode share is presently over 67%, while the official target is to make it to 70% by 2020 and to 75% by 2030 (MoT, n.d.). Moreover, it is expected that LTA's planned investment of US\$18 million in the transport innovation sector will create 8000 public transit jobs by 2030 (Farhan, 2018). Additionally, a survey from 2016 indicates Singaporean citizens' satisfaction with public transport is as high as 94.5% (PTC, 2017).

Results



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