Institutional Development in Urban Transport
Role of Institutions in Urban Transport

- Cities need transport planning, provision, management and monitoring.
- States need to set norms and provide finances and guidance.
- Centre needs to provide enabling frameworks, policies and finances.
- Urban transport governance is challenged at various levels- capacity, authority, finances, coordination, etc.
What does the module do?

➤ Provides the learner with a detailed overview of how transport is governed in Indian cities through multiple tiers of government institutions, agencies, and programs.

➤ Brings forth the issues that exist around the existing urban transport institutional set-up, which hinder the achievement of sustainable urban mobility goals.

➤ Documents efforts and experiences of attempted improvements for urban transport institutions from India and abroad, and highlights where the gaps lie and how they could be bridged for improving institutions in India.

➤ Suggests a way forward in terms of possible improvements and reforms for the existing institutional structures to make them function more efficiently in cities of different sizes.
What does the module not do?

- Provide a specific solution to overcome all institutional related issues facing urban transport in the country.
- Suggest a particular type of institutional structure that Indian cities should adopt.
- Identify the exact skill sets, team sizes or designations for personnel as part of the suggested institutional restructuring proposals.
End Objectives of the Module

- Get an understanding of the existing institutional set-up for UT in India
- How can we improve the existing institutional set up?
- How can we take forward the existing institutional set up towards the desired set-up?
Roles an responsibilities of Govt. institutions

What are institutions and what are they made of?

Efficient institutions and Good governance

Present Institutional framework and challenges

Lessons : Institutional reforms in UT in India and abroad

Recommendations made so far and level of compliance

Improving the existing framework and way ahead
Defining Institutions

Institutions are broadly defined as systems of rules, either formal or informal, and those rules define the boundaries of any institution. Institutions are also likely to be organizations: the physical embodiment of an institution, that is, people who carry out a particular set of activities.
Defining Institutions (cont’d)

• Institutions are broadly defined as systems of rules, either formal or informal (soft or hard), and those rules define the boundaries and interaction within/across institutions.

• Institutions are also likely to be organizations; the physical embodiment of an institution, that is, people who carry out a particular set of activities.

• The term ‘institution' is also used to refer to many different types of entities including organizations as well as the rules, norms, and strategies used to structure patterns of interaction within and across organizations.

• “While the buildings in which organized entities are located are quite visible, institutions themselves are usually invisible.” (Ostrom, 1990, p.822-823)
What makes Institutions?

Drivers/Enablers
- Policy, Plan, Act, Rule, Program

Roles/Responsibilities/Functions
- Planning, Regulation, Service provision, Monitoring, Financing, etc.

People/Actors
- agency, service providers, organizations, individuals, etc.
Defining Governance

• Governance is a process that brings together actors from the public and the private sphere to steer (parts of) societies by a variety of mechanisms that include institutions, but also partnerships, networks, belief systems, etc. (Biermann et al., 2009)

• Institutions is a part and parcel of the concept of Governance

• 6 dimensions of Governance: Accountability, Transparency, Productive relationships, Advocacy, Clarity of Purpose, Responsiveness

Discussion: How are we faring on these dimensions in our present system of urban transport governance today?
Institutions are needed to...

• Create a policy and vision, framework to ensure cities adopt a sustainable path of growth

• Provide funds for the cities to implement this vision by physical infrastructure and capacity creation, maintenance and constant improvement

• Regulate the sector to ensure discipline, order, efficiency, travel safety, good health and environment, public spaces and liveability

• Plan for public transport and other ‘clean, green and high quality’ mobility services and facilities

• Set fares, standards, quality norms, etc.
Urban Transport Institutions in INDIA
What is the Role of Institutions in creating/ensuring Urban Transport?

Strategic Planning
- Setting service standards
- Fixing of routes, fares and schedules
- Vehicle registration
- Issue of permits
- Regulation
- Long term planning
- Policy formulation
- Development vision
- Financing strength

Construction & Maintenance
- Highway construction
- Urban roads
- Bridges
- Airports

Service Delivery eg. PT Operations
- Bus operations / BRT
- Rail / Metro
- IPT and para transit
- Others

Source: UMTC, 2012
Tier wise listing of actors

Centre-
- Ministries (Road transport and Highways, Urban Development, Railways, Heavy Industries, Environment, Home, Housing and Urban Poverty Alleviation, Finance, Petroleum and Natural Gas) – policy making, financial assistance, standard setting
- Planning Commission- Five year plans

State-
- Transport Department- Vehicle licensing and registration; emission norms
- State Transport Undertakings- Inter and intra city Public transport (bus) provision
- State Development Authorities- carry out city and satellite town planning
- The Public Works Department- has responsibility for roads and bridges in the cities
- Pollution control board- enforces emission norms
- Labour department- enforces labour laws
- Finance Department- budgetary allocations, impose and collect different taxes

City-
- Local municipal government- provides roads, infrastructure like bus stands, regulates traffic along with Traffic Police, controls construction, etc.
- Local city development authority-discharges town planning functions
- Traffic Police-regulates traffic
- SPVS- plan and manage bus operations
Existing challenges

- Some functions that nobody is performing
- Financial, human, technical capacity
- No priority to high quality, integrated PT system
- Public participation, disclosure
- Fragmentation
- Co-ordination
- Communication
- Integration
- Political will, champion-ship
- Legal, procedural, enforcement hurdles

Photo source: EMBARQ 2013
More specifically, the challenges can be categorized as:

- **Adaptation challenges:**
  - Governments’ acceptance of the need to change.
  - Increased globalization and politicization of the urban mobility issue.
  - Integrating urban land-use and mobility planning.

- **Administrative and governance challenges:**
  - Complications associated with urban administrative boundaries.
  - Changes in organizational arrangements of agencies.
  - Integrated planning and management.
  - Multiple Actors
  - Inter-agency collaboration.

- **Policy, planning, management and regulatory issues**
  - Mainstreaming social and environmental concerns
  - Addressing public transport planning and management issues, multi-modal integration.
  - Other specific issues related to enablers and functions related to urban transport

- **Resourcing and capacity-building challenges:**
  - Lack of sustained funding for urban transport infrastructure and services.
  - Developments of information and communications technologies.
  - Institutional capacity-building and training of staff.

(adapted in parts from forthcoming UN-Habitat’s GHRS report)
Adaptation Issues

Lack of acceptance among governments

➢ There is a little (slowly growing) acceptance among governments of the need to change the paradigm of institutions and governance for urban transport

➢ Key reasons are lack of understanding and capacity to implement

➢ Also acceptance levels vary greatly in different cultural and development contexts, and between cities as well as different levels of government in the country; as a result some cities are more progressive than the others (eg. Bangalore, Ahmedabad)
Adaptation Issues

Increased globalization and politicization of the urban mobility issue.

- Lot of talk at the international level from all perspectives-local environment, climate, heritage, etc.
- Numerous global documents on what sustainable mobility means and all it encompasses, eg. “smart growth”, etc.
- Introduction of these in local policies without supporting technical assistance, institutional reforms and political support results in limited success (eg. NUTP and Delhi BRT)
- Reducing/discouraging car usage needs strong political intervention at the ground level

Source: Adapted from UN-Habitat’s forthcoming GHRS report
Adaptation Issues

**Integrating urban land-use and mobility planning**

- Increasing recognition that this is important, yet little being done to address it

- Some of the challenges in realizing this include:
  - Time frame: mobility plans are dynamic and changing, whereas land use planning is more permanent and ‘one-time’
  - Both professions demand different skill sets; hardly any courses that teach both in detail
  - Both do not necessarily talk to each other

- However, this element is key to sustainability and we have to find a way to achieve it.
Administrative and Governance Issues

- Overlapping or fragmented institutional responsibilities
- Horizontal co-ordination and vertical integration between departments is a challenge
- Lack of a single lead authority to provide direction and decision-making
- Regularly changing organizational arrangements
- Countless committees and meetings with many times questionable outcomes
- City governments still do not see urban transport as a basic municipal service/responsibility (like water, sanitation); state provides PT services in most cities
- Issues with:
  - Organizational culture- vision and motto
  - Organizational processes- HR, performance, rewards, etc.
  - Organizational capacity/skills

Source: UMTC, 2012
The segregation of powers is prescribed in the 7th schedule of the constitution based on which several laws regarding different aspects of Urban Transport were framed.

- List I
  - Railways
  - Highways
  - Inland Waterways
  - Shipping
  - Ports
  - Airways
  - Carriage of Passenger & Goods by Railways, Airways
  - Interstate River
  - Terminal taxes on Goods or Passenger carried by Railways, Airways etc.

- List II
  - Taxes on goods & passengers carried by roads or inland waterways
  - Taxes on vehicles
  - Tolls
  - Rates of Stamp Duty

- List III
  - Shipping and Navigation on inland waterways

Jurisdiction of Union
- National Highways Act
- NHAI Act
- AAI Act
- Tramways Act
- Railways Act
- Motor Vehicle Act
- Road Transport Corporation Act
- Metro Railways Act

Jurisdiction of State
- State Highways/Roads regulation Laws
- Development Authority Laws
- Municipal Laws
- Infrastructure Development Laws
- Motor Vehicle traffic Regulation Laws
- State Road transport Corporation Laws
- Industrial Area Development Laws

Source: Deloitte Touche Tohmatsu India Private Limited, 2013
Since Urban Transport is not a single unified subject matter for legislation in the Constitution, there exist multiple laws which have overlap in jurisdiction.

**Jurisdiction of Union**
- Airways, Aircrafts and Air Navigation
  - Airports Authority Of India Act, 1994
  - Carriage By Air Act, 1972
- Railways
  - Railways Act, 1989
- Road and Vehicules
  - Motor Vehicles Act, 1989
  - Road Transport Corporation Act, 1950
- Shipping and navigation on inland waterways, Maritime
  - Inland water Ways Authority of India Act, 1985
  - Indian Ports Act, 1908
- National Highways
  - National Highways Act, 1956
  - National Highways Authority of India Act, 1986

**Jurisdiction of State**
- Motor Vehicles/Traffic Regulation
- Laws Regulating State Highways/State Roads
- State Road Transport Corporation Laws
- Town and Country Planning Act
- Development Authority Act
- Municipal Act
- Local Government
- Communications across channels
- Taxes on communication channels
- Land, Revenue, Urban Planning

As according to the 74th amendment, the local bodies need to be empowered by the state. As according to the 12th schedule, eighteen items are to be delegated to local bodies, according to which transport is a mandatory function of the municipality.

Source: Deloitte Touche Tohmatsu India Private Limited, 2013
Administrative and Governance Issues

Functions: Coordinating, Facilitating, and Overseeing

➤ Transport Department

• Oversees the state/city transport corporations and Regional Transport Authorities

➤ Urban Development Department

• Parastatal agencies which run urban transport services report to UDD

• Influences investments in urban transport for cities in that particular state

• Coordinates projects which requires the buy-in from various department heads
Administrative and Governance Issues

Functions: Issues - Coordination

➤ Coordination happens at the state level rather than the city level. This is mostly on account of financial issues where state governments control the purse strings of urban transport projects.

➤ Issues of seniority and ranks often prevent officers from seeing eye-to-eye with other department colleagues and leads to project delays and cost-overruns.

➤ UMTAs were designed as co-ordination bodies but do not have the necessary legal backing to summon departments and make them do their job.
Role of UMTA as envisaged by 12 FYP and NTDPC

<table>
<thead>
<tr>
<th>General Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>UMTA for all million plus cities</td>
</tr>
<tr>
<td>Smaller cities to be clustered together under one UMTA</td>
</tr>
<tr>
<td>3 tier organizational setup in the city – MPC/DPC, UMTA, Existing agencies for implementation and operations</td>
</tr>
<tr>
<td>UMTA should be a full time professional body</td>
</tr>
<tr>
<td>Strategic, policy and regulatory functions</td>
</tr>
<tr>
<td>Legislative backing is a must</td>
</tr>
<tr>
<td>Enactment of a comprehensive urban transport act</td>
</tr>
<tr>
<td>An ‘Urban Transport fund’ should be set up to receive funds from various sources to finance urban transport projects</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional NTDPC Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Necessary allocation of funds to give greater authority to UMTA</td>
</tr>
<tr>
<td>Permits to be issued only as approved by UMTA</td>
</tr>
<tr>
<td>Existing agencies to continue managing operations of public transport</td>
</tr>
</tbody>
</table>

Source: UMTC 2012
## Overview of UMTAs in India

<table>
<thead>
<tr>
<th>City</th>
<th>Organization</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore</td>
<td>Bangalore Metropolitan Land Transport Authority</td>
<td>Entire metropolitan area, statutory planning role, covers all aspects of urban transport</td>
</tr>
<tr>
<td>(Govt. Order)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hyderabad</td>
<td>Hyderabad Metropolitan Transport Authority</td>
<td></td>
</tr>
<tr>
<td>(HMDA Act)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chennai</td>
<td>Chennai Unified Metropolitan Transport Authority</td>
<td></td>
</tr>
<tr>
<td>(Tamil Nadu Act 35 of 1972)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: UMTC 2012
# Overview of some UMTAs in India

<table>
<thead>
<tr>
<th>City</th>
<th>Organization</th>
<th>Sources of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangalore</td>
<td>Bangalore Metropolitan Land Transport Authority</td>
<td>State Govt. funding</td>
</tr>
<tr>
<td>Hyderabad</td>
<td>Hyderabad Metropolitan Transport Authority</td>
<td>Escrow account in HMDA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 0.25% of cost of all projects to be deposited</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 0.25% development charged to credited annually</td>
</tr>
<tr>
<td>Chennai</td>
<td>Chennai Unified Metropolitan Transport Authority</td>
<td>CUMTA Fund</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Govt. to provide funds as may be considered necessary for its functioning</td>
</tr>
</tbody>
</table>

Source: UMTC 2012
## Overview of some UMTAs in India

<table>
<thead>
<tr>
<th>City</th>
<th>Organization</th>
<th>Composition</th>
</tr>
</thead>
</table>
| Bangalore | Bangalore Metropolitan Land Transport Authority | • Headed by Chief Secretary  
• Other members include the heads of all the key departments of the government as well as the heads of the Development Authority and the Municipal Corporation. |
| Hyderabad | Hyderabad Metropolitan Transport Authority     | - Same as above -                                                                                                                             |
| Chennai  | Chennai Unified Metropolitan Transport Authority | • Headed by Minister in charge of Transport  
• Chief Secretary as Vice Chairman.  
• Other members include the heads of all the key departments of the government as well as the heads of the Development Authority and the Municipal Corporation. |
Administrative and Governance Issues

Challenges with UMTAS

- Lack of a comprehensive legislation regarding UMTAs – They are legally incomplete until such time as they are not backed up by requisite legislation.
- UMTAs were designed as co-ordination bodies but do not have the necessary legal backing to summon departments and make them do their job.
- Need for an UMTA to be part of a larger body – either the development authority or metropolitan planning committee. Reporting line?
- Need for a strong, competent individual to lead UMTA who should be a domain expert and report to the development authority head
- Issues of seniority and ranks often prevent officers from seeing eye-to-eye with other department colleagues and leads to project delays, cost-overruns, and nothing being done.
- Independent control of funds is still an issue
ENABLERS: Progress till Date

Directorate of Urban Land Transport (DULT), Bangalore

- UMTA for Vijaywada, Guntur, Tenali & Mangalgi
- UMTA for 6 cities in UP
- Mysore City Land Transport Authority (MCLTA)
- UMTA for MMR Region in Mah State
- UMTA for Bhubaneswar & Puri
- UMTA for Uttar Pradesh urban areas
- UMTA for Jharkhand, Ranchi, Jamshedpur
- UMTA for Chennai
- UMTA for Kohima city
- UMTA for 4 cities in MP

Source: UMTC 2012
Policy level challenges

- Ambiguity in policies, laws and programs (Enablers)
- The ‘AVOID’ option is not mainstreamed into policies
- Gender, vulnerable groups’ and environmental concerns not mainstreamed into policies and plans
- Lack of translation of national policy into state and city level action plans (NUTP came out in 2006)
- Limited success with improvement in public transport systems in cities; focus to NMT is limited; Hardly any efforts at recognition and integration of informal transport modes like para transit into city transport
- Urban freight is a neglected issue
- Intermodal integration will require integration and co-ordination at the institutional level first
- No focus on base lining and mandatory performance measurement for improvement/compliance purposes
Policy, planning, management and regulatory issues

Enablers: Ambiguity in Constitutional Jurisdiction

- Ministry of Railways: sole provider of rail-based transit systems for the country
- Central Government: in charge of inter-state transport systems and national highways
- States: urban transport systems which are intra-state or intra-city
- Each ministry/department: “Allocation of Business Rules”, which assigns specific responsibilities. (Until 1968, there were no business rules for urban transport. Different ministries/departments would implement that part of urban transport that was in their work area/jurisdiction.)

- Result: many cities and states did not know how to proceed with mass transit projects.
Policy, planning, management and regulatory issues

Enablers: Laws, Acts, and Rules

- Mass Transit Acts
  - The Metro Railways (Construction of Works) Act, 1978
  - The Tramways Act
  - The Delhi Metro Railway (Operations and Maintenance) Act, 2002

- Urban Planning Legislation (no explicit mention of transport planning):
  - Town and Country Planning Acts (mandated by individual state- some like TN and Maharashtra have provision of including transport planning as part of Mater Plans, whereas Karnataka does not.
  - Urban Development Authority and Municipal Acts

- The Road Transport Corporation Act, 1950 covers the management of state run bus corporations. Some of these also play in urban areas and cities do not any control over them.
A Landmark: The National Urban Transport Policy

- Focus on moving people not vehicles - public transport
- Integrated land use and transport
- Clean fuels and technology
- Capacity building

2006
Specific Issues with NUTP

• Lack of translation into effective state and city level action plans with supporting organizational reforms

• Greater focus on the need to build and develop mass transit systems in cities of various sizes; inadequate emphasis on the need to improve the availability, accessibility and quality of the existing public transport systems

• No mention of setting targets to increase modal shares of public transport in cities

• No mention of demand management measures and the “Avoid” option

• Inadequate emphasis on the need to develop detailed guidelines on procedures for conducting mobility audits, traffic surveys and data modelling and analyses for transport planning, alternative analysis (including engineering, economic & environmental) between two or more transport options, etc.
• First reform-driven financial stimulus package exclusively targeting urban areas by the central government
• Envisaged “mission projects” for 65 select cities
• An investment of over INR 1,00,000 crores by centre, state and city govts
• Publicly stated aim of the programme: to make cities “investor friendly”; active PPPs

Source: MoUD, 2007

Source: IIHS, 2011
JNNURM – specific issues

• Failure to mainstream urban planning and link land use and transport, which is the key
• Continued focus on road widening projects
• Focus on disbursing money, not delivering quality projects
• No Alternative Analysis; issues of cost overruns, land acquisitions, approvals, etc.
• Incomplete reforms, slow progress in project implementation,
• Poor service delivery, quality and institutional hurdles
• Lack of focus on vulnerable groups, infrastructure resilience and climate adaptation
• Lack of capacity at city level to absorb and implement reforms; resulting in new problem
• Lack of monitoring and evaluation framework (KPIs)
### Enablers: JNNURM

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>No. of Projects Sanctioned</th>
<th>No. of Projects Sanctioned</th>
<th>Total Cost of Projects (Rs. In crs.)</th>
<th>Total Additional Central Assistance (ACA) (Rs. In crs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Roads/Flyovers</td>
<td>106</td>
<td>87,856</td>
<td>35,834</td>
</tr>
<tr>
<td>2</td>
<td>Mass Rapid Transport Systems</td>
<td>21</td>
<td>52,116</td>
<td>23,734</td>
</tr>
<tr>
<td>3</td>
<td>Other Urban Transport</td>
<td>17</td>
<td>8,186</td>
<td>3,789</td>
</tr>
</tbody>
</table>

Spending on roads and flyovers which predominantly favour / encourage more private transport was more than that spent on MRTS projects and bus procurements for state transport corporations put together.
Enablers: JNNURM

Purchase of Buses

➢ The scheme was mainly intended to provide economic stimulus to the heavy industry

➢ About 15000 buses were sanctioned to 61 JNNURM cities to improve public transport situation

➢ Initial observations;

   ▪ Cities with SRTU were able to launch the services, while others struggled

   ▪ Support infrastructure was the biggest challenge

   ▪ Emphasis was on procurement, operations required big push

   ▪ There were under and over supply of buses
Enablers: JNNURM

Governance Reforms Required for Funding

- 74th Amendment must be implemented by urban local bodies (elected local bodies specifically encouraged)
- States must set up Metropolitan Planning Committees
- Community Participation Law must be enacted by states which will allow for “Area Sabhas” (legally mandated local urban meetings within a ward) and “Ward Committees”

Issue with the above: They offer an excellent opportunity to address this issue of having unelected development authorities at the state or the city levels. For many years, states did not implement these components of decentralization and only chose to act when there was threat of non-payment of funds from the central government
Enablers: JNNURM

City Development Plans (CDPs) and Comprehensive Mobility Plans (CMPs)

- Each JNNURM city came up with a City Development Plan, which is a policy and investment plan for the city for 2007-2012.
- It was conditional upon the cities to take up projects in line with the recommendations made in the NUTP, in order to receive funding and grants.
- For this each of the cities was required to develop a Comprehensive Mobility Plan and currently many cities are engaged in the same.
Before and After CMP, Pune budget review

Break up of Transportation Budget

- MV: 61%
- NMT: 18%
- PT: 12%
- General: 9%
Comprehensive Mobility Plans- Issues

• Followed from JNNURM; to be in line with NUTP goals

• Preparation was rushed and funding and capacity was limited – not enough time/resources

• A wish list of projects and not a holistic program/planning approach to sustainable mobility

• Consultant's vision; not city’s (lack of participatory processes)

• Started with public transport; ended up doing road widening and construction in many cases

• Not linked to existing Mater Plans or budgetary allocations

• Absence of KPIs to evaluate CMP and its impact
More issues: JNNURM Decentralization

- **74th Amendment must be implemented by elected urban local bodies**: Eg. “city planning” is to be undertaken by the “elected local body”. However in many cities such as Bangalore, Mumbai, Ahmedabad, etc., it is seen that the “city planning function” is undertaken by the local development/planning authorities, which are parastatals and which do not have any direct linkages to citizens (as opposed to municipal corporations, whose councillors are elected by people).
More issues: JNNURM  Decentralization (cont’d)

- **States must set up Metropolitan Planning Committees:** West Bengal was the only state that had an active MPC before the JNNURM. States such as Maharashtra, Andhra Pradesh, and Gujarat have passed enabling legislations.

- **Community Participation Law must be enacted by states which will allow for “Area Sabhas”** (legally mandated local urban meetings within a ward) and **“Ward Committees”**. For many years, states did not implement these and only chose to act when there was threat of non-payment of funds from the central government.
Integrating urban land-use and mobility planning- the Institutional challenge

Increasing recognition that this is important, yet little being done to address it. Challenges:

• Time frame: mobility plans are dynamic and changing, whereas land use planning is more permanent and ‘one-time’

• Both professions demand different skill sets; hardly any courses that teach both in detail

• Both departments do not necessarily consult each other

• Lack of legislation requiring coordination between land use planning and transportation planning. For example: municipal agencies are responsible for development of CMPs, however implementation is largely by planning bodies

• Lack of micro plans and schemes like Town Planning Schemes leads to varied interpretations of the terms like “mixed land use”

• Transit Oriented Development policies
Policy, planning, management and regulatory issues

Functions: Traffic Management

- Controlled by the Traffic Police of a particular city
- Responsible for enforcing traffic laws and punishing offenders
- Usually have a limited budget, and a significant amount of the fines which they collect normally do not come back to them
- Normally do not have any traffic experts and planners to help them in better traffic management
- Often at the mercy of the municipality regarding traffic signage
- Shortage of manpower is often a hindrance in implementing traffic rules.
Policy, planning, management and regulatory issues

Functions: Citizen Participation

❯ Citizen participation unpopular among Indian policymakers

❯ 74th Amendment, which calls for “ward committees” and “area sabhas” to allow for citizens to have a proactive say in local planning, has not found traction in any state.

❯ Clause in the JNNURM: passing the “Community Participation Law”—mandatory in order to get funding

❯ However clauses discourage participation of all, eg. Non-registered voters

❯ Overwhelming opinion among policymakers that the area of urban transport planning is too complex to involve citizens

❯ Civil society members hold that citizens can determine their own transport needs, and plans can be scaled up from there.
Policy, planning, management and regulatory issues

Functions: Monitoring and Evaluation

➢ M&E has been a weak spot where urban transport projects are concerned:
  • There are not key performance indicators that are monitored periodically to assess the situation
  • Cost-cutting results in poor quality work
  • Budgetary constraints of government forces them to accept lowest bid
  • Public transport operations and quality parameters are not monitored as a mandatory requirement
Policy, planning, management and regulatory issues

Functions: Issues – Monitoring (cont’d)

➤ Lack of skills with regard to monitoring different works, especially at the city municipality level

➤ Strong nexus between contracts and those who are supposed to monitor works (city engineers), leading to low quality work

➤ Lack of standards for monitoring bodies to measure the work against.
Resource and Capacity Building issues

Functions: Financing and Budgeting

➢ 3 ways for urban transport to be financed:
   • Income generated from fare box collections
   • Revenue from non-transport commercial activities
   • Government subsidies

➢ Chronic problem: failure of urban transport projects, especially mass transit projects, to realize profits
Resource and Capacity Building issues

Functions: Financing and Budgeting

Financial Losses and Fleet Strength of Urban Bus Undertakings

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual Loss in Rs. Crores</th>
<th>Average Bus Holdings by Urban Bus Corporations</th>
<th>Annual Loss Per Bus in Rs. Lacs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-2000</td>
<td>530</td>
<td>17997</td>
<td>3.22</td>
</tr>
<tr>
<td>2000-2001</td>
<td>538</td>
<td>18610</td>
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<tr>
<td>2001-2002</td>
<td>531</td>
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<tr>
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<td>4.77</td>
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<tr>
<td>2004-2005</td>
<td>1021</td>
<td>16120</td>
<td>6.33</td>
</tr>
</tbody>
</table>
Suggestions for new models of financing:

- Land value capture along the routes where transport networks are planned,
- Efficient pricing regimes,
- Investments from the private sector,
- Higher property taxes along routes where transport networks are planned,
- Granting development rights to developers who construct and operate transport networks,
- Congestion pricing,
- Road pricing
- Different kinds of PPP models
Resource and Capacity Building issues

Functions: Financing and Budgeting

- Cons of private sector involvement in project financing:
  - Need to justify the project to potential investors, leading to inflated projections
  - May result in escalated tickets to make it profitable, thus making such transportation unaffordable to many

- What is the role of a transport provider? Is it purely to make profit or does urban transport have a more social goal?

- Role of “participatory budgeting” – making citizens in charge of preparing budgets?
Resource and Capacity Building issues

Functions: Issues - Financing

- Private Sector financing comes with its own risks. There is a need to justify project viability, leading to doctored figures regarding ridership and revenue projections.

- Concession agreements with private players tends to allow for higher ticket pricing, affecting the ability of poor people to use public transport.

- There remains a question of whether urban transport should have a profit motivation or be looked at in a different light (having linkages to livelihood opportunities).

- There is a need to look at inexpensive projects which cities can afford, rather than looking at “big ticket” projects which can bankrupt economies.
Resource and Capacity Building issues

Functions: Capacity Creation

- Sustainable transport planning approached from civil engineering perspective; multidisciplinary issues surrounding transport overlooked
- Need for unlearning and re-learning amongst transport agencies, starting with those at the top
- Understaffing of trained professionals in city planning agencies
- 4 centres of excellence in urban transport- good step, needs review, ensure curriculum is line with sustainable transport planning not car centric planning
- Need for tie-ups between research institutes and city governments so that urban planners and transport planners can constantly engage with each other and benefit from each others’ experience
Examples of Institutional Reforms in Urban Transport
# Summary of case studies analyzed

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<thead>
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<th>Institutional Analysis Method Applied</th>
<th>Main Actor(s) involved</th>
<th>Key functions performed</th>
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<td>Victoria, Australia</td>
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## Summary of case studies analyzed (cont’d)

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<tr>
<td>London, UK</td>
<td>Planning, integration and performance measurement</td>
<td>Timeline Analysis</td>
<td>City authority</td>
<td>Strategic planning, financing, service planning, facilities management, transport operations, demand management, etc.</td>
</tr>
<tr>
<td>Ahmedabad, India</td>
<td>Creating an award-winning BRTS</td>
<td>Operational Analysis</td>
<td>City authority and academic partner</td>
<td>Service planning, public transport provision, facilities management, monitoring, etc.</td>
</tr>
<tr>
<td>Mexico</td>
<td>Metrobus and its impact on the urban poor</td>
<td>Distributional Analysis</td>
<td>City authority and service provider</td>
<td>Service planning and provision, facilities management, impact monitoring, etc.</td>
</tr>
<tr>
<td>Santiago, Chile</td>
<td>Community participation for sustainable transport</td>
<td>Participatory Approaches</td>
<td>NGOs and citizens</td>
<td>Vision, participatory governance, monitoring impacts, etc.</td>
</tr>
<tr>
<td>Vancouver, Canada</td>
<td>Integrated planning body</td>
<td>Historical Analysis</td>
<td>Unified planning and implementing authority at the local level</td>
<td>Strategic planning, financing, service planning, facilities management, transport operations, demand management, etc.</td>
</tr>
</tbody>
</table>

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**Note:** The table continues with more case studies, but the above exemplifies the structure of the summary.
SNAPSHOT Case Studies: Lessons Learnt

**Essential requirements of effective institutions:**

- **VISION:** Clear, attainable objectives
- An enabling Act: An appropriate and sound legal basis for the exercise of powers and duties
- Well defined functions: Strategic planning, service planning and regulation done by nodal public agency, supported by subsidiaries, pvt. Sector under well defined contracts
- Presence of a regulatory and co-ordinating body to ensure integration
- High degree of importance of public transport, paratransit and NMT projects to ensure sustainability
- Ensuring integration of land use and transport
- Political championship at the local level
- Well-defined working procedures with limits to officers’ discretion
- Adequate resources: funds and qualified, motivated staff
- Accountability for performance to a higher administrative or political body
- Procedures for public reporting and consultation with stakeholders
Transport Department, Victoria-Functions
Transport Acts in Victoria: Then and Now

The Transport Integration Act 2010 replaced the Transport Act 1983 as Victoria's primary transport statute.

Some of the characteristics of the old Transport Act were:

- No single overarching coordinating Act for the transport portfolio
- Only covered land transport; not integrated with other transport and non-transport (land) legislation
- Lack of emphasis on environmental and social outcomes and community objectives in general
- Exclusion of many actors impacting transport decisions
Process of change

- The Act was passed by Parliament in February 2010 and commenced on 1 July, 2010.

- Two-year stakeholder and community consultation process.

- **40 briefings, 8 forums** (in both metropolitan and regional areas) attended by local government, industry, community associations, and MPs from state and federal government, **120 workshops**, **two Ministerial Stakeholder Round Tables**, and **78 formal submissions**.

- The **strong message** received was the need to emphasize transport and land use integration and to consider social, environmental, and economic outcomes in transport decisions. This feedback is reflected in the Act.
Victoria Transport Integration Act

- 2010: Transport Integration Act to unify all elements of the transport portfolio under one central statute by providing a common direction for transport and a legislative platform for an integrated and coordinated transport system:
  - Placed a requirement on transport bodies and key non-transport bodies to have regard for the objectives and decision-making principles of the bill
  - Required planning to be undertaken in line with this policy framework
  - Established transport bodies under one piece of legislation, with a common goal to work together to foster greater integration and sustainability
Functions listed for the Transport Department (as per the New Act)

- Act as the lead in all of the strategic policy, advice, and legislative functions
- Coordinate the development of regulatory policy and legislative advice
- Lead in the improvement of the transport system, including the development and construction of new infrastructure and the provision of new services
- Develop strategies, plans, standards, performance indicators, programmes, and projects relating to the transport system and related matters
- Develop and issue guidelines with respect to the implementation and operation of this Act
Functions listed for the Transport Department (as per the New Act)

- Provide corporate, financial management, property, and other specialist services to transport bodies
- Collect transport data and undertake research on the transport system
- Undertake operational activities, including transport system operations, asset management, and project management
- Provide assistance to public entities and private bodies to construct or improve transport facilities and to provide services ancillary to those facilities
The Act sets out:

- A vision statement ("the transport system we want")
- Transport system objectives ("the outcomes which will deliver on the vision")
- Decision-making principles

("how we deliver the outcomes")
Victoria Transport Integration Act: Policy Framework

Vision:

Victoria aspires to have an integrated and sustainable transport system that contributes to an inclusive, prosperous and environmentally responsible state.

Objectives

- Social and economic inclusion
- Economic prosperity
- Environmental sustainability
- Integration of transport and land use
- Efficiency, coordination, and reliability
- Safety, health, and well-being.
Victoria Transport Integration Act: Policy Framework

**Principles**

- Integrated decision making
- Triple bottom line assessment (people, planet, profit)
- Equity
- Transport system user perspective
- Stakeholder engagement and community participation
- Transparency
- Etc.
Examples of amendments

- The Department of Transport is given a clear leadership and coordination role across the transport portfolio.
- Under sections 26 and 27, an “interface body” may determine the weight to give to each transport system objective or decision-making principle. The Act allows the Minister to make a statement of policy principles in relation to an interface body. The interface body must have regard to any such statement.
- Part of the VicRoads (agency responsible for road planning and development) charter, as amended under the Act, is to “manage the road system in a manner which supports a sustainable Victoria by seeking to increase the share of public transport, walking and cycling trips as a proportion of all transport trips in Victoria.”
- It merges the director of marine safety and the director of public transport safety, creating a single, independent transport safety regulator, which provides a more integrated approach to safety regulation.
- Developed a guide to assist management and staff in the department and other transport agencies to comply.
Multiple agencies working together resulted in:

- Increased accountability
- Detailed enough policy to provide clear direction
- Flexible enough policy to accommodate agencies’ different roles and responsibilities
- Principles of institutional integration for sustainable development reinforced
- Integrated approach to safety regulation
- More efficient: unnecessary duplication in systems and processes removed
MUMBAI

- Located in western India
- One of the densest cities in Asia
- 13.8 million people living in an area of 434 sq. kms.
- The Mumbai Metropolitan Region (MMR) has an area of 4354 sq. km and a population of 22 million.
- 2.6 million registered vehicles on the streets of Mumbai in 2005, nearly 80% of which were personal vehicles
Issues reported with Mumbai taxi service:

- Ageing fleet
- High number of breakdowns
- Poor hygiene within cabs
- Poor quality of service
- Cheating on fares
- Limited AC cabs
- Lack of newly available technologies – GPS, electronic meters, etc.
Response:

- State government put into place an enabling mechanism in the form of the fleet taxi service scheme of 2006 to facilitate the arrival of radio cabs in the city.

- Number of taxi permits remained frozen at 58,000

- Entrepreneurs able to build cab companies and introduce radio cab services through transfer and aggregation of existing system of individual permits.

- Existing taxi permits can be utilized for the purpose of fleet taxi services without transferring them to the name of the prospective fleet taxi operators. Instead, the vehicles to be operated under the scheme will be leased by the operator to the permit holder.
Maharashtra Private Fleet Taxis Act, 2006

Actors:

• Collaborative approach between civil society, private sector, and the Government (Bombay First, McKinsey India, and Government of Maharashtra, State Transport Authority, Taxi Union)
• Consultative process with all stakeholders, namely: taxi unions, taxi drivers, civil society bodies, government, as well as a convening of international best practices
• Extensive interviews with existing taxi drivers to understand current ownership and operations models and get their feedback about introducing air conditioned fleets
Maharashtra Private Fleet Taxis Act, 2006

**Enablers:**

- Traffic subcommittee submitted the recommendations report to the Government in October 2004
- Study tour to witness Singapore’s “Comfort Delgro”: lessons on technology integration and centralized operations learned from the study tour incorporated into the act.
- Maharashtra Private Fleet Taxi Act, 2006 approved by State Transport Authority
- Company-level qualifications for taxi companies: minimum and maximum fleet size per company per city (500 < Taxis < 12,000), dispatch service levels, electronic meters, and GPS tracking.
The current situation:

- There are 58,000 cab permits in Greater Mumbai, comprising a mix of black and yellow cabs, cool cabs, new vehicles, and private cab companies

- Radio cabs struggle to meet high demand

- Organization of the taxi sector into formal registered companies has made it attractive for investment

- Challenge for cab companies: scaling up fleets

- Need for a more holistic approach to design a system to create an adequate number of permits for a city with the population and travel demand of Mumbai

- Limited availability of trained drivers
Maharashtra Private Fleet Taxis Act, 2006

Recommendations:

- **Capped permits or entry control for individually-owned taxis** engaged through street hailing or from cab stands to prevent oversupply on the street or at cab stands and provide drivers with the opportunity to supplement dispatch trips with cab stand trips.

- **Allow cab companies to adjust fleet sizes as trip volumes increase or decrease** (through periodic regulatory reviews of industry size, or by allowing authorized companies to add or subtract cabs from their fleets without regulatory approval).

- **Entry qualifications to help create a level playing field among different cab operators** (to prevent companies that have not made investments in dispatch systems from undercutting others with lower driver lease fees).

- **Training Institutes (ITI) can set up 3-6 month programmes for driver training.** The institutes, in partnership with RTOs and cab companies, should develop certification programmes for driver training as well as need-based language and reading skills.
LAHORE

- Second largest city in Pakistan
- All characteristics to support sustainable transport systems:
  - high density
  - low car ownership
  - large amounts of NMT traffic
  - short trips

The belief that the use of automobiles, the growth of motorization, and continuous investment in roads will bring economic growth has resulted in worsening traffic congestion, pollution, and road safety issues over the past few decades.

Primarily the result of the export of knowledge from developed countries carried by international development institutions as part of a knowledge-cum-technology transfer phenomenon.
Tracing the Evolution of Lahore’s City Master Plans

This case study looked at how “outside institutions” and expertise, together with weak local capacities has resulted in the Pakistani city of Lahore adopting a “road-based” transport paradigm, despite its potential to develop more sustainable transport systems.

Muhammad Imran, 2010
The “chain of command”, where the local governments depend on the provincial, who in turn depend on the federal and who in turn depend on the international development institutions, helps to implement transport policies (mostly encouraging road building) prescribed by the international development institutions.

Master Plan evolution
Tracing the Evolution of Lahore’s City Master Plans

- With each progressive plan, focus on road development and road rehabilitation has continued to assume importance over public transport improvement and NMT preservation.

- Institutional path dependence, as a barrier, was found in the local institutions charged with the development of sustainable transport planning in Pakistan.

- Road development model was adopted, and continued, due to the intervention of international institutions.

- Local institutions in Lahore initially attempted to address cycling, walking and different modes of public transport, but discontinued pursuing this.
Tracing the Evolution of Lahore’s City Master Plans

Reasons:

- Lack of adequate human and financial capacity at various organizational levels
- Overlapping responsibilities and poor coordination
- Position of international institutions had stronger influence than local institutional context
- No serious efforts on the part of the federal or international institutions to build appropriate capacities in existing transport planning institutions, which would then have been able to independently design local solutions
## Institutional Capacity of Organizations in Lahore

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Roads Planning and Development</th>
<th>Public Transport and NMT Planning</th>
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<tr>
<td></td>
<td>HR capacity</td>
<td>Financial capacity</td>
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<tr>
<td>Planning and Development (P&amp;D)</td>
<td>*****</td>
<td>*****</td>
</tr>
<tr>
<td>Communication and Works (C&amp;W)</td>
<td>*****</td>
<td>*****</td>
</tr>
<tr>
<td>Transport Department (TD)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic Engineering and Transport Planning Agency (TEPA)</td>
<td>*****</td>
<td>***</td>
</tr>
</tbody>
</table>

NMT = Non-Motorized Transport; HR = Human Resource. Level of capacity ranges from * (1) very weak to ******* (8) suitable to manage transport planning activities in Lahore.

Source: Imran, 2010
Lessons

➤ International institutions and associated consultants could potentially shape the outcomes of urban transport planning in developing cities, their interventions could also limit the application of sustainable transport solutions consistent with a city’s social, physical, cultural and developmental needs.

➤ Foreign advice can be utilized best only if the indigenous institutions are strong.

➤ Focus on local ‘expert’ knowledge to adapt ‘export’ knowledge

➤ Capacity of local institutions to plan independently
Bangalore City Profile

- Formed in 1537 – Mud fort + 4 boundary pillars
- Southern India. Capital city of Karnataka
- Population of 8.4 million (2011 census)
- Population growth rate of 4% for over a decade
- Vehicular population of 4.2 million and growing with 1000 new vehicles being added to the road every day
- Textiles, manufacturing, IT services, informal sector provide employment
Urban Transport Plans for Bangalore Metropolitan Region

Overview of institutional set-up of transportation - Bangalore
Agencies in Bangalore dealing with Urban Transport

- Greater Bangalore Municipal Corporation - BBMP
- Bangalore Development Authority - BDA
- Directorate of Urban Land Transport - DULT
- Bangalore Metropolitan Regional Development Authority - BMRDA
- Bangalore Metropolitan Transport Corporation - BMTC
- Bangalore Metro Rail Corporation Limited - BMRCL
BBMP – Role in transport

- Democratically elected municipal council
- Maintenance and development roads (expand roads), pedestrian facilities & other non-motorised transport
- Bangalore’s history playing a role in deciding BBMP’s understanding of urban transportation
- Old city – Narrow roads, mixed land use
- Cantonment – Separation of land use, wide and metalled roads
- Road expansion as a transport strategy since 1950s.
- Negligible focus on pedestrians/non motorized transport
- Contractor driven system
Institutional structure of BBMP road works

BDA

• Formed in 1976 by state government

• Mandate to plan for Bangalore city + surrounding areas

• Has been successful in developing master plans for Bangalore, creating layouts, developing roads, flyovers and underpasses.

• Has been accused to being illegal, overstepping its mandate and not consulting with citizens.

• Continues to plan for Bangalore city and beyond

• Funded by the state government
BMRDA

- Created to replace the BDA
- Supposed to plan for Bangalore Urban, Bangalore Rural and Ramanagara districts (excluding that part which is planned by the BDA)
- Has prepared a structure plan for the Metropolitan region, and a CTTS – both of which are pending approval from the state government
- No real power
DULT/BMLTA

• Created in the mid 2000s to co-ordinate urban land transport for Bangalore

• Created under Centre’s influence

• No real power. Met with limited success

• Has managed to create cycling tracks, raised the importance of non-motorised transport.

• Future not clear, needs to be decided
Why BMLTA?

- Who is planning for transportation in Bangalore City?
- How to meet urban transportation needs of all citizens (‘Mobility to all’)?
- Does every stakeholder need to have its own transport plan?
- Is there an authority to decide on and drive a unified transportation plan?
- If yes, what are its goals & functions?

Source: Gaurav Gupta, April 2012
Creation of BMLTA

- NUTP recommends UMTA for cities >1m
- BMLTA – created as UMTA for BMR March 2007
- Coordinating all land transport activities
- Empowered committee: chaired by CS, GOK
- Member Convener: Commissioner, DULT

Stakeholders

- BBMP /BDA
- BMRDA
- BMTC/ KSRTC,
- BMRCL
- Bangalore Traffic Police
- KUIDFC
- SW Railways
- NHAI, PWD
- Dept. of Transport, GoK

Source: Gaurav Gupta, April 2012
Creation of the Directorate of Urban Land Transport

- DULT a precursor to having a separate dept. for Urban Transport issues

- Jurisdiction: Bangalore & 6 Tier II Corporation cities
  - Mysore, Mangalore, Bellary, Belgaum, Hubli-Dharwad & Gulbarga

- DULT to also act as secretariat for the BMLTA.

- To initiate CTTP for other cities

- To act as Nodal agency for coordinating urban transport issues

Source: Gaurav Gupta, April 2012
Constitution of BMLTA

Bangalore Metropolitan Land Transport Authority

Chaired by the CS, GOK, Member Convener, Commissioner, DULT

High Level Task Force on Airport Connectivity
- Chairperson KUID&FC
- Member Convener, BMLTA

Sub-Committees of BMLTA
- Chairperson, PS, UDD: Convener: Commissioner DULT

- BTTI
  - Code and guidelines

- Parking Policy &Infrastructure

- Commuter Rail System

- Inter Modal Bus Terminals

- External Development Charges

- Action plan: CTTP

Source: Gaurav Gupta, April 2012
Subcommittees of BMLTA

- Intermodal Transit Centers (IMTC)
- High Level Task Force (HLTF) for Airport Connectivity
- Commuter Rail System (CRS)
- Parking Policy
- Monitoring of BTII Projects
- Overseeing CTTP Implementation
- External Development Charges
- Code & Guidelines
Outcomes of Subcommittees

- IMTC’s in progress
- Improved Airport Connectivity
- Planning for Commuter Rail
- Parking Policy Formulated
- BTTI – an association with City-Connect – an industry + NGO body for taking up joint initiatives in T&T
- Decisions on implementation of transport plans in accordance with CTTP

Source: Gaurav Gupta, April 2012
BMLTA: Challenges ahead...

- Augmenting Public Transportation (PT)
- Integrating agency plans to fit within the CTTP
- Pedestrian commuting & cycling - encourage NMT
- Innovative Strategies to implement projects in pipeline
- Innovative financing mechanisms for projects
- Use of technology to review & monitor transport plans
- Communication with all stakeholders to make them see the big picture & take up sustainable transport projects
- Evolving Consensus and participation

Source: Gaurav Gupta, April 2012
Way Forward...BMLTA

- Strengthening BMLTA:
  - Capacity Building
  - Statutory backing
- Strong Public Identification & Coherent Image
  - www.bmlta.org
  - Backing groups and events
- Encourage more PT by integration of networks and terminals, and by common ticketing etc
- Effective TDM and reducing motorized vehicles

Source: Gaurav Gupta, April 2012
BMTC

- Bangalore’s sole bus based public transport service provider (monopoly)
- Fleet of 5800 buses + 78000 trips daily
- Has been criticized for lack of direct routes, and plying luxury services at the cost of regular buses and high ticket prices
- Is one of the few profitable bus based urban transportation service providers
BMRCL

- The latest addition to Bangalore’s public transportation projects
- 6.5 kms, 6 stations currently under operation
- Total budget of first phase over Rs. 8 billion crores, which is more than the budget of BBMP.
- Criticized for tree felling, being non participatory and expensive.
- Planned for a population 10 years ago???
- Real effect will not be known till complete implementation
Non-state actors

- PRAJA – commuter rail system
- Hasiru Usiru – Pedestrian rights, non motorised transport
- Environment Support Group (ESG) – Rights based perspective. Looks at transport as a means of development.
- Ride a Cycle Foundation – Cycling in captive campuses
- Bangalore Bikes Club – Recreational cycling activities.
- ABIDE – seeks to promote Bangalore Regional Governance Bill which will address institutional and financial aspects of transportation.
- Consultants like Wilbur Smith which prepared Mobility Indicators – 2008, SCE Crocen which prepared draft of Master Plan for Bangalore – 2015 and others
Summation of Institutional Transport Issues in Bangalore

- All departments/parastatals/city corporation funded and controlled by province/federal government
- Agencies with little or no reporting to elected city representatives
- The city’s elected representatives citizens have no real say in what transport projects should be implemented
- Obsession with big ticket projects and motorised transport
- Lack of debate and transparency regarding how decisions about urban transportation are made
- Multiple agencies with multiple mandates
- No talk with other departments which have a direct link with transport (housing, commerce, health etc)
Possible Institutional Improvements in Bangalore- Lessons

• Devolution of power to urban local bodies. 74\textsuperscript{th} amendment of the constitution talks about this. States have done very little.

• Participation of non profit/citizen groups in decision making can be viewed as a positive, though certain groups have personal motives. Also, how does one define a community

• Funding issues/money flow needs to be sorted out before structures are put in place

• Better representation of urban poor in the planning
São Paulo

- Brazil’s main commercial, financial, and industrial centre
- Largest South American city
- 10.4 million inhabitants
- Urbanized area of 900 sq kms
- Transport pioneer in Latin America: state of the art metro system, several bus priority measures
- 39 kms of segregated tracks for buses in operation in 2001
São Paulo: The Interligado Project

Public transportation modernization plan for the Municipality of São Paulo which includes:

- the optimization of the bus routes and services
- fare integration using advanced technologies
- bus fleet renovation
- new requirements to the companies delivering transit services
- support infrastructure for buses
The integrated solution for bus services proposed the following:

- Recuperates the government’s responsibility to regulate, to organize, and to control transit service delivery.
- Builds an adequate legal basis for improvement, modernization, and primacy of urban public transportation.
- Implements a fare collection technology that makes it possible to have a unique and integrated public transportation network.
- Includes autonomous transport providers in the regular services under municipal oversight.
- Segregates bus services from the general traffic, reserving space for bus circulation.
- Uses information technology for monitoring and control of the bus services.
- Defines a new profile for the structural corridors seeking urban environment improvements and increases property values in their area of influence.
São Paulo: The Interligado Project

Regulatory Overhaul in São Paulo

• A new transport law established the principles for the Interligado system. It set up the conditions for a new bidding process for transport services, allowing the autonomous transport providers to participate in the new system and indicating the responsibilities of the public and private agents involved.

• A complementary land use strategic plan included the public transport network as one of the four structural components of the urban area. The strategic plan gives precedence to public transportation over general traffic and generates instruments for funding infrastructure for the public transportation system.
São Paulo: The Interligado Project

Key Regulatory Institutional Barriers:

- Inter-agency coordination
- Coordination with other levels of government
- Regulatory Regime
- Opposition from transport industry leaders
- Opposition from van operators (Peruveiros)
- Large scale reorganization
- Limited funding availability
- Neighbourhoods opposed busways
São Paulo: The Interligado Project

LESSONS:

➢ Political commitment
➢ Phased implementation
➢ Regulatory overhaul
➢ Enabling interagency coordination
➢ Enabling Coordination at various levels of government
➢ Technical preparedness
➢ Inclusion of formal as well as informal players in the system through a participatory process
London

- Capital of England and UK
- Major world city
- Global centre of industry, finance, and culture.
- Population 7.56 mill in 2007
- 4,807 persons/sq. km: one of the most densely populated cities in Europe
- One of the most extensive public transport systems in the world

Slide credits for the London case study go to Peter Wright Principal Transport Planner, Policy and Strategy, Transport for London and EMBARQ’s Bus Karo publication.
London Travel Facts

- Every weekday in Greater London:
  - 6 million journeys made on buses
  - 3.5 million on the Tube
  - 7 million on foot
  - 0.3 million by bicycle
  - 0.2 million by taxi
  - 11 million car / motorcycle trips
Management of Transport Services in London – Before 1984

- **Charities**
  - Dial-a-Ride

- **London Regional Transport**
  - Underground
  - Buses
  - Trams
  - River Services
  - Fares & Ticketing

- **Police**
  - Taxis

- **Docklands Development Corporation**
  - Docklands Light Railway (DLR)

- **Boroughs**
  - Walking
  - Cycling
  - Local Streets

- **Traffic Director for London**
  - Main Roads
The Greater London Authority Act, 1999

- Led to the formation of the GLA as the municipal authority for Greater London. It was also responsible for the creation of TfL as a body under the GLA. The authority and responsibilities of TfL are detailed under the Act.

- Mayor of London and GLA are required to develop and implement policies that will “promote and encourage safe, efficient, economic and integrated transport services to, from and within London”.

- TfL has a duty to facilitate the successful discharge of the Mayor and GLA’s transport-related responsibilities.

- As a TfL subsidiary, London Buses is empowered to enter into contracts with any person or company in order to provide public transport services.
Urban Transport Institutional Structure

MAYOR OF LONDON

Functional Bodies
- MPA (Metropolitan Police Authority)
- Transport for London
- London Development Agency
- London Fire and Emergency Planning Authority

Operational Modes
- Surface Transport
  - Buses
  - Streets
  - Coaches
  - River
  - Rail
- London Underground
  - London Underground
- London Rail
  - Docklands Light Railway
  - Overground
  - Tramlink

Corporate
- Planning
- Finance
- Fares & Ticketing
- Communications
- Smarter Travel Unit
- Human Resources
- Legal
Unique example of a developed world city achieving net shift from private to public transport through:

- Expanding service supply
- Improving service quality
- Improving bus performance through the extensive use of bus priority measures
- Fare policies to encourage ridership
- Pro-public transport political leadership
- Robust transport planning authority
London Public Transport Strategy

- Overhauled its bus system in a piecemeal fashion, with several initiatives over many years (not massive changes under 1 political leader)
- Coordinated approach with commitment to the transport vision at various levels of political power
- London Regional Transportation Act (1984)
- Phased deregulation of bus services
- TfL (Transport for London): manages transport in London area and implements the mayor’s Transport Strategy
- 23 different bus companies working in Greater London
London Bus System Organizational Chart

Mayor & Greater London Authority
- Decides overall London Transport Strategy
- Sets Fare Levels
- Sanctions TFL budget
- Arranges TFL financing

Transport for London (TfL)
- Manages all transport modes
- Integrates transport services
- Provides common services e.g. ticketing
- Manages subsidiary companies like LBL and London Underground

Transport Trading Limited

London Bus Services Limited
- Planning for all aspects of bus service
- Monitors service quality
- Maintains bus infrastructure
- Research and Development
- Also manages Croydon Tramlink

London Buses Limited
- Until mid-2009 operated East Thames Buses
- Currently operates other services such as Dial-A-Ride for disabled travelers

Private Bus Companies
- Provide bus services
- Maintain assets, including buses and garages
- Operate under contract to London Bus Services Limited
London Bus System: Key Strategies

- Fare policy
- Innovations in tendering and contracting
- Extensive System Monitoring
- Bus Priority Measures: London Bus Priority Network (LBPN)
- London Bus Initiative (LBI)
- Bus Lanes and Bus Lane Enforcement
- Traffic Signal Priority and iBus
- “Cashless Bus” Strategies
Vision for Non-motorised Transport in London

- Increase in cycling of at least 400% by 2025
- "...one of the world’s most walking friendly cities by 2015..."
- 7 million walking trips each day by 2025
- All London’s bus stops / crossing facilities to be fully accessible
Making Walk/Cycling a Mode of Choice

People need to feel that...

“The choice is apparent and attainable.”

People need to feel that...

“The choice is desirable.”

People need to feel that...

“I could walk or cycle.”

“I can walk or cycle.”

“I want to walk or cycle.”

The choice is desirable.

Which means ensuring that...

The choice is physically possible.

Which can be achieved by:

- location and design of new developments
- infrastructure improvement
- tackling crime/disorder

- clear route information
- skills training
- personal travel plans
- raising awareness

- attractive urban realm
- safe and courteous road-user environment
- building walking/cycling into other transport projects
Means to Achieve NMT Vision: London Cycle Network Plus

- 900km strategic network to be completed in 2010
- Borough programme managed by a dedicated team in the London Borough of Camden - £19.7M budget in 2008/09
- Bicycle parking facilities
- Promotion of cycling (advertising, maps, cycle training, etc.)
Walk Friendly Design

Before...

...After
Key Institutional Elements of Success in London

- Strong political leadership
- London-wide transport strategy
- Gradual reforms
- Phased deregulation of bus services
- Technically excellent transport authority, TfL
- Strong Institutional set-up under TfL enabled by legislation
- Political Will to implement attractive fare policies
- Innovative Tendering and Contracting Processes
- Performance-linked financial incentive schemes
- Consultative Approach with bus operators
- Partnerships between GLA and local councils for bus priority measures
- Extensive System Monitoring
Ahmedabad

- Largest city in the state of Gujarat
- 7th largest urban agglomeration in India
- Population of 5.6 million
- Textile capital of India
- Finance and administrative hub of the state
Ahmedabad: Janmarg (People’s Way) BRT

- Launched in October 2009
- India’s first full BRT service
- Covers 31 kms.
- Ridership more than double (nearly 60,000 passengers/day) since opening
- Over 40% of these switched from motorized two- and three-wheelers
- System includes:
  - pre-board ticketing
  - high-quality median-aligned stations with level boarding
  - real-time information at stations
Ahmedabad: Janmarg (People’s Way) BRT

Institutional and contractual changes crucial to the fundamental delivery of a BRT system:

- Strong leadership and coordination among government agencies
- Technical and operational planning: outsourcing crucial functions to Indian and international experts in sustainable transport systems
- SPV to manage the day-to-day operations of Janmarg
Unique Qualities of Ahmedabad Janmarg

- Financial model, system design, and infrastructure design all based on the operations plan that was derived from extensive demand estimates
- First Indian system to set up a BRT management agency
- Pioneer in introducing competitive tendering of new operational contracts and in tying new operators to performance-based contracts
- First BRT system in India to have a control centre that employs GPS installed in every bus
- All technologies bundled under a single provider
Lessons for Institutional Best Practice from Ahmedabad

- Leadership in the administration
- Dedicated participation of all stakeholders
- Coordination of various government agencies for quick and optimal implementation
- Creation of lean management agency focused on implementation using SPV model
- Janmarg a service to citizens – AMC owns up the deficit
- Planning and decision making outsourced to CEPT – a centre of excellence
- Continuous participation of CEPT avoids piece-meal approach
- Under PPP model, distribution of responsibilities match the strengths of each agency
- Full spectrum of management issues addressed
- Competitive tendering and tying operators to performance-based contracts
- Continuous performance monitoring and commuter
Mexico City Profile

- North America's largest metropolis
- Financial, political, and cultural capital of Mexico
- 8.8 million inhabitants in Federal District
- 21 million inhabitants in metro area
- Regarded as one of the most polluted cities in the world.
Mexico City: Metrobús Project

- Launched to replace the existing private micro-bus scheme with a more organized, efficient, and environmentally sustainable operation
- A unique public-private partnership (PPP) helped plan and build dedicated BRT lanes
- Covers 95 kms: largest system of BRT corridors in Latin America.
- Corridors include:
  - segregated bus lanes
  - enclosed stations with prepayment
  - large buses
  - electronic fare collection
  - advanced control systems
- Spaces designed exclusively for women, children, and the elderly at most stations and within buses
Mexico City: Political Challenges in Implementation

- Lack of institutional alignment toward project goals by agencies not directly involved in project planning
- Existing concessionaires of the corridor had to be brought on board to overcome opposition
- Public protests by operators were not acceptable
Mexico City: Metrobús Business Model

- PPP: existing micro-bus drivers displaced and then hired as BRT rolling stock operating companies with the government as facilitator

- Dispersed concessions replaced by one single concession for the whole fleet

- Metrobús in charge of planning, control, and supervision, as well as coordination with other agencies
Mexico City: Institutional Arrangements

- The public decentralized body Metrobús is responsible for the planning, administration, and control of the Corridor System of Passenger Public Transport of the Federal District.

- The transport companies Corredor Insurgentes S.A. de CV formed by the old concessionaries of Route 2 in the insurgents corridor and Red de Transporte de Pasajeros del Distrito Federal. One private and one public company will operate the 84 articulated buses in a proportion of 75% and 25% respectively.

- One company specialized in the operation and maintenance of the payment systems (Imbursa).

- One private fiduciary for the administration, investment and distribution of the resources generated by the Insurgentes Corridor.
Measures to enhance the city’s walking and cycling conditions:

- “Pedestrianization” of the city's historical centres and of some of its neighbourhoods
- Bicycle promotion strategy
- Building cycling-friendly infrastructure
- Bicycle-sharing system, Ecobici (EcoBike)
Distribution of Net Benefits for Mexico City’s Metrobús across Various Income Quintiles

![Bar chart showing distribution of net benefits across income quintiles.]

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Benefit-Cost Ratio by Quintile (income per month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>$0 - $4,500</td>
</tr>
<tr>
<td></td>
<td>1.54</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Delgado Medrano, 2011
Lessons for Institutional Best Practice from Mexico City

Keys to success are:

• Political Leadership
• Technical expertise
• Pressure groups
• Incorporating existing operators to avoid legal and political issues
• Public Private Partnership Model
• Public decentralized body set-up for planning, administration, and control.
• Specialized agencies for operations, actions coordinated under SPV.
• Dedicated units for implementing key mobility strategies
Santiago

- Capital and largest city in Chile
- Located in the central part of the country
- Latin America’s most modern metropolitan area, including a modern transportation infrastructure
- Population exceeding 5 million in 2002
Santiago: Living City - Founding

- Initiative begun with communities in three separate municipal areas and from widely diverse backgrounds (low-income residents, market vendors, renters and homeowners, and businessmen), coming together and forming an anti-highway coalition against the first urban highway project proposed for Santiago in the 1990s. For different motives, they joined together to oppose the highway project, delaying its implementation for five years and profoundly changing the final project.
Santiago: Living City - History

- Successful oppositional campaign to the highway
- Leaders accumulate knowledge about sustainability, urban transport, health and equality
- 2001: launch successful recycling project
- 2002: leaders visit Bogotá’s Transmilenio and Cicloruta
- 2003: team up with World Bank to bring Enrique Peñalosa, former mayor of Bogotá, to Chile for a major seminar
- Spread its message of sustainable transport by conducting trainings, writing books and periodicals sent to policymakers and media, and undertaking a variety of initiatives for the well-being of the city.
Campaigns always driven by democratically-controlled citizens’ organizations.

Relations with authorities, whether municipal, regional, or national, based on horizontal relationships between autonomous organizations.

Meetings held in Living City’s own Centre for Citizen-led Planning and chaired by citizen representatives.

This gave civil society groups genuine power over content, process, and results. Thus, there is at the very least partnership between citizens’ groups and government officials, often delegated power, and in many instances, genuine citizen control.
Santiago: Participatory Governance

- Importance of engaging citizens in order to get them to choose healthier and more sustainable transport modes.
- When attempting profound institutional changes, it tends to be easier to modify behaviour first at the informal level, particularly roles and informal codes, then more formal policy levels.
- Quality participatory methods that are based more in partnership and responsibility sharing contribute more to strengthening democracy.
- They also provide room for conflicts to reach fruitful conclusions.
## Santiago: Theory and Practice of Institutional Transformation

<table>
<thead>
<tr>
<th>Level of Action</th>
<th>Formal Relations</th>
<th>Informal Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constitutional level (ground rules)</td>
<td>Legal systems</td>
<td>Value orientations</td>
</tr>
<tr>
<td>Policy area level (relations between governmental bodies)</td>
<td>Formal regulations</td>
<td>Informal codes</td>
</tr>
<tr>
<td>Operation level (daily activities)</td>
<td>Procedures</td>
<td>Roles</td>
</tr>
</tbody>
</table>

Source: Adapted from DeJong et al. 2002, cited in Sagaris, 2009
Metro Vancouver

- Coastal seaport city on the mainland of British Columbia, Canada
- Among the fastest growing urban regions in Canada and the United States for the past forty years,
- 3,000 square kilometres area: 2.5 million people.
- Modes: suburban and commuter rail, trolley bus, bus, bicycle ferry
- Provinces in Canada responsible for basic services provision including transport
- City councils in the 1970s and 1980s prohibited the construction of freeways as part of a long term plan.
- Vancouver is the only major Canadian city where the rate of car ownership and the average distance driven by daily commuters have fallen since the early 1990s
In the 1990s, Vancouver came up with a Livable Region Strategic Plan/Transport 2021 based on the following three-part strategy:

1. **Manage land use** in accordance with the Livable Region Strategic Plan to reduce the need for new transportation facilities and services and to support the more efficient transportation modes.

2. **Manage transportation demand** through support for carpool and vanpool measures first and then through implementation of regulatory and pricing measures such as road pricing and parking strategies.

3. **Manage transportation supply** by providing road and transit facilities and services in a manner that supports and complements the land use and demand management strategies.
Co-ordination

- The link to local plans was achieved through a provision in the new legislation requiring municipalities to adopt regional context statements incorporating the regional plan’s policies in local land use planning documents.

- Extensive public and municipal consultation processes were conducted by the Greater Vancouver Regional District (GVRD) and with the province it jointly developed the enabling legislation, which was enacted by the provincial Legislature in 1998.

- The new arrangements, which were negotiated between the provincial government and the GVRD (now called Metro Vancouver) featured creation of a single political authority – TransLink.
TransLink (legally the South Coast British Columbia Transportation Authority) is the organization responsible for regional roads, transit, transportation demand management, promotion of transportation alternatives and vehicle emission control in Metro Vancouver

- **Vision:** A better place to live built on transportation excellence.

- **Mission:** “Together, we connect the region and enhance its liveability by providing a sustainable transportation network, embraced by our communities and our people.”

- **Values:** Safety, Customer Service, People, Inclusiveness, Integrity, Excellence, Sustainability, Accountability
Today Translink is responsible for regional transit, cycling and commuting options as well as AirCare (the air quality program) and Intelligent Transportation System programs. Translink delivers its services through its operating companies.
Powers of TransLink

- Translink’s powers are governed by the SCBCTA Act (1998)
- Powers to contract for the delivery of service and to create subsidiaries, regulatory and pre-emptive powers of government, including the power to approve of independent transit services, the power to expropriate property, and the power to establish fares, user charges and taxes.
  - Road network identification and funding
  - Assessment, Levying and Collection of taxes- parking, fuel, property taxes
  - Land inspection rights
  - Fare setting and collection for transit services
  - Plans and planning strategies
  - Organizational arrangements
TransLink- governance

- Board of Directors, the Mayor's Council on Regional Transportation and the Regional Transportation Commissioner
- Has access to a wide range of transportation-related revenues including an annual vehicle charge, tolls on facilities it finances, parking taxes and transportation user charges; also provincial revenues
- Public consultation a must
- Transparent decision making
TransLink- Lessons

➢ Responsibility for roads, transit, transportation demand management, promotion of alternate transportation modes and vehicle emission controls is consolidated under one political authority controlled by local government.

➢ The authority is required to operate within the broader policy context set by regional government for regional growth management, air quality, economic development and public finance.

➢ The authority’s transportation services are funded primarily from transportation revenue sources – fares, fuel taxes, parking taxes, vehicle test fees, vehicle charges and tolls.

(Source: Puil, 1999)
Case Studies: Summing Up

**Essential requirements of effective institutions:**

- Clear, attainable objectives which are consistent with broader policy objectives
- An enabling Act: An appropriate and sound legal basis for the exercise of powers and duties
- Well defined functions
- Presence of a regulatory and co-ordinating body to ensure integration
- High degree of importance of public transport, paratransit and NMT projects to ensure sustainability
- Ensuring integration of land use and transport
- Political championship at the local level
- Well-defined working procedures with limits to officers’ discretion
- Adequate resources: funds and qualified, motivated staff
- Accountability for performance to a higher administrative or political body
- Procedures for public reporting and consultation with stakeholders
EXERCISE WORK

➢ Summarize a case study that has particular relevance for the challenges of your situation, explaining the relevance, policy or process innovation, and how it might be applied in your case.

➢ Which policy areas would you like to address in urban transport, and what institutional changes would you recommend in the short, medium, and long term?

➢ Attempt drafting an appropriate legislation and organizational structure for urban transport provision in India for the national, state and city levels.

➢ Using the Optional Analysis tool, carry out an institutional analysis to decide who will be best suited to lead and manage the proposed Hubli-Dharwad BRT corridor.
Exercise: OPTION ANALYSIS FOR HUBLI-DHARWAD BRT

- Twin cities in the state of Karnataka
- 20 kms. apart
- The Hubli Dharwad Municipal Corporation covers an area of 202.28 sq. kms
- Hubli: a developing industrial hub in Karnataka after Bangalore, with more than 1,000 small and medium industries
- Dharwad: known for being one of the important educational centres in Karnataka
Traffic Issues in Hubli-Dharwad

- High number of personal motor vehicles
- High air and noise pollution
- Demand for travel between the 2 cities at 70,000
- Most of the buses over-aged and crowded during peak hours of the day
- Grossly inadequate fleet
- No well-defined user services such as terminals, bus stops, and bus bays for boarding and alighting of passengers.
Proposed BRT for Hubli-Dharwad

Bus Rapid Transit system has been proposed to connect Hubli with Dharwad
Questions Regarding Hubli-Dahrwad BRT Organization

- What kind of an entity would manage this corridor and its operations?

- Should the entity be responsible only for the BRT or should it have a wider set of responsibilities that enable it to function as a Unified Metropolitan Transport Authority (UMTA)?
Hubli-Dahrwad BRT Project Assessment

Project Objectives

- to assess various options and suggest the best place organization to manage the new BRT system

Project Methodology

- meetings with key stakeholders to understand the governance structure in the state and the city and assess the strengths and weaknesses of relevant departments and organizations

- Literature review of the international best practices in the management of BRT systems
Hubli-Dahrwad Project Methodology

Ownership by anyone of the existing institutions

Options

Sieving based on pros and cons

Joint Ownership all important organizations – Need for SPV

Legal Structure → Options
Share-Holding → Options
Board of Management → Options
SPV Head/Chairperson → Options
Financial Strength → Options
Manpower Requirement/Staffing → Options
Hubli-Dahrwad: Key Issues Examined

Should the entity to be set up manage only the BRT, or should it also have a larger role, beyond the BRT?

Should the entity managing the BRT also operate these buses, or should the operations be contracted out?

Should the existing organizations be used for operation of BRT, or should a private player be introduced for such specialized services?

If privatization is considered, what should be the extent of its involvement?

Should asset ownership, related to BRT and its components remain with individual organizations, or should they be transferred to a new entity?
Hubli-Dahrwad: Options Analysis

Possible institutions that could effectively manage the system:

• NWKRTC manages directly
• Subsidiary company/City Cell in charge of BRT
• HDMC in charge of BRT
• DULT in-charge of BRT
• New SPV (Special Purpose Vehicle)
SPV for Hubli-Dahrwad BRT

- SPV recommended for the Hubli-Dahrwad BRT based on the following considerations:
  - Legal structure
  - Shareholding pattern
  - Board of management
  - Head of the SPV
  - Financial Backing and Source of Income
  - Building up of manpower
Recommendations for the SPV for the Hubli-Dharwad BRT

- The SPV should be initially created as a company, with the possibility of legislative backing added later on.

- The State Government should possess the majority of shares and lead in the management of the SPV.

- The Commissioner of DULT could serve as the head of the board, with the Deputy Commissioner as the Vice Chair.

- Funding from sources other than the government and SPV members should be carefully planned in order to ensure service sustainability.

- Establishing suitable manpower would best be achieved by both directly recruiting from the market and recruiting from internal government staff.
Recommendations and Way Ahead
Response of the Government so far

- Several committees, working groups, policies and programs
  - 12th Planning Commission
  - NUTP
  - JNNURM
  - NTDPC
  - High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services (2008)
  - Ministry of Urban Development – Wilbur Smith’s Recommendations on Institutional Setup regarding Urban Transport
  - Etc.

- Same recommendations re-iterated time after time

- Have we made any progress?
1.12th Planning Commission

- Urban Transport mentioned first in 8th PC; recognized as a separate Working Group only in the 11th PC
- Noted the need to set up an effective institutional framework
- Suggested the augmentation of public transport with partial funding
- Recommended development of NMT facilities for all cities with pop more than 2 lakhs and state capitals.
- Cycle auto rickshaws as a measure of last mile connectivity should be developed.
- Capacities of state and city government officials should be developed
- A hierarchy of road network in upcoming and developing areas should be established.
- A multimodal transport system with ITS to be put in place.
- A dedicated urban transport fund
- Compliance: Recos incorporated into proposals submitted to MoF. WG routes actions to NUTP, which again lacks teeth
2. NUTP

- Compliance: Mixed

- Recognized as apex policy document by PC, JNNURM

- States and cities have not been able to implement things in the true spirit of the policy due to capacity, infrastructure and legal constraints; lack of vision and leadership

- Plans developed are essentially a list of projects; don't address sustainability which is core to the NUTP
3. National Transport Development Policy Committee’s (NTDPC’s) Working Group on Urban Transport

- Comprehensive mobility planning
- Integrated land use transport planning
- Transport demand management
- Transit-oriented development
- Focus on NMT
- Integrated multimodal city-wide public transport network
- Institutional measures, including strengthening UMTAs (empowering them and bringing them under the fold of independent Metropolitan Planning Committees), creation of a separate urban transport department within the MoUD, etc.

- Compliance: Final recommendations yet to be released; will Ministries accept the change? If not, we are back to square one!
4. JNNURM

- Financial arm for NUTP
- Has mandatory and non-mandatory reforms
- Preparation of Comprehensive Development Plan (CDP) by city agencies
- Preparation of Comprehensive Mobility Plans (CMP) for cities
- Implementation of the 74th Amendment, especially the “planning function” by elected city development agencies
- Setting up of Metropolitan Planning Committees (MPC) for metropolitan regions
- Creation of community participation laws which will allow citizens to take part in the city planning process
- Compliance: CDPs not integrated with MPs, CMPSs not sustainable, planning done by UDDs, only few MPCs, funding for roads and flyovers larger share
5. The High Powered Expert Committee (HPEC) for Estimating the Investment Requirements for Urban Infrastructure Services (2008)

➤ Setting up of Metropolitan Planning Committees

➤ Setting up of UMTAs

➤ Need to increase investments on urban infrastructure from the current 0.7% of GDP in 2011-2012 to 1.1% by 2031-2032.

➤ Strengthening the financial base of Urban Local Bodies (ULBs)

➤ The need to launch a new JNNURM which focuses on capacity building and supports urban reforms within a programme approach

➤ The central and state governments taking a leadership role in financing urban infrastructure projects, including urban transport projects

➤ Compliance: Important recommendations already covered in JNNURM and state governments could not deliver too well on them; next phase of JNNURM to be stricter

» Setting up of an ideal urban transport institute with authority for all metropolitan land transport issues, strategic operations and management policies regarding public transport, arterial roads and parking, formal linkages to land-use planning, strong formal legislative oversight, and enforcement

» Recommends an institutional structures for transport for cities with a population of 1.5 million – 4 million and 1 million – 1.5 million.

» In each of these scenarios, the city has considerable power over urban transport functions.

» Compliance: Limited implementation of these recommendations; UMTAs are very few in number and struggling; while major planning functions regarding are not performed by transport professionals at the city level

* In each of these scenarios, the city has considerable power over urban transport functions.

* Compliance: Though the recommendations in this study are fairly detailed, only limited implementation of these recommendations has been seen. The UMTAs that should be an integral part of transport planning UMTAs are very few in number and struggling; while major planning functions regarding are not performed by transport professionals at the city level.
Summary of Key Recommendations

- **12th Five Year Plan**
  - A dedicated UT authority in million plus cities
  - A dedicated urban transport fund
  - New department for UT at Centre and State level

- **NTDPC**
  - Strengthening UMTAs (empowering them and bringing them under the fold of independent Metropolitan Planning Committees), creation of a separate urban transport department within the MoUD

- **JNNURM, HPEC**
  - Setting up of Metropolitan Planning Committees (MPC) for metropolitan regions

- **MOUD (Wilbur Smith Report)**
  - Setting up of an ideal urban transport institute with authority for all metropolitan land transport issues, strategic operations and management policies regarding public transport, arterial roads and parking, formal linkages to land-use planning, strong formal legislative oversight, and enforcement
Improving the existing Institutional Enablers, Actors and Functions

1. Vision to be strengthened around the land use and transport link
2. Align JNNURM to achieving NUTP objectives
3. Improve co-ordination and communication mechanisms, transparency in decision making
4. Re-imagine UMTAs and empower cities parallely to manage their transport systems
5. Improve the process of creating CMPs; make it a notified document
6. Doing monitoring and evaluation –modal shares, distances, travel time, fuel consumed/emissions, safety, PT and NMT quality; link funding to cities with measurement and reporting of these.
7. Build capacity to implement reforms
8. Shift political influence on investments in favor of sustainability (local champions); make sustainable transport fashionable.
9. Streamline public participatory governance in decision making
Improving co-ordination

• For smaller cities or cities with one or two pre-dominant modes of transport like buses or auto rickshaws, create a cell having representation from various departments; this to co-ordinate with central and other state level bodies.

• For larger cities having multiple modes, and presence of central agencies like airports, national highways and railways, an high level co-ordinating mechanism needs to be in place, perhaps an UMTA to facilitate integration of local modes with key nodes like airports, railways stations, etc.
Issues to be considered for UMTAS

• Needs legal backing: Integrated Urban Transportation Act
• Participation of all actors: heads of states, various industries
• Defined either for identified regions or the whole state; created in a phased manner with scope for expansion in jurisdiction, powers and functions over a period of time.
• Have sub-committees looking at the following issues: public transport services, resources and policy, investment and capital projects, standards, subsidies, enforcement, monitoring, etc.
• Facilitate co-ordination, do monitoring of goals and city’s performance, ensure regulations and standards are met, introduce new regulations and standards and even bye-laws, bring in good governance practices like transparency and community participation, advise on investment decisions and ensure a constant flow of transport revenues to the city
• Not pose as an infringement on the rights and functions of the ULBs and the ULBs should continue to plan and execute projects within their jurisdiction,
• Cities empower themselves to take all relevant decisions and come up with plans and strategies for transport in line with the NUTP and UMTA approved framework/guidelines.

• Have clear statutory overriding authority to resolve any conflicts with powers vested by other laws with other agencies or departments.

• Cities to experiment and work out best arrangement; document experience as there is lack of knowledge capital on these issues which are clearly more hierarchy and politically drive.

• Funded by revenues coming in from fares, advertisements, cess on fuel and roads, etc.

• The question of who will the UMTA report to is a moot one. There is one thought that UMTA should report to the Metropolitan/District planning committee (MPC), and in its absence, to the state Government.
## Suggested UMTA Functions

<table>
<thead>
<tr>
<th>Range of Functions</th>
<th>Type of Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation, coordination and supervision of execution of all planning and UT projects within the zone</td>
<td>Strategic</td>
</tr>
<tr>
<td>Provide overall policy framework</td>
<td>Strategic</td>
</tr>
<tr>
<td>Operations, maintenance or transportation systems</td>
<td>Operations</td>
</tr>
<tr>
<td>Develop, implement and enforce plans and projects</td>
<td>Strategic/Regulatory/Construction</td>
</tr>
<tr>
<td>Act as a coordinator with the land use planning authority to ensure integration of land use and transport planning</td>
<td>Strategic</td>
</tr>
<tr>
<td>Developing policy framework for fixing fares</td>
<td>Strategic / Regulatory</td>
</tr>
</tbody>
</table>

Source: UMTC, 2012
### Suggested UMTA Functions....cont’d

<table>
<thead>
<tr>
<th>Range of Functions</th>
<th>Type of Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare, publish and ensure compliance with service standards, specifications and manuals</td>
<td>Regulatory</td>
</tr>
<tr>
<td>Promote technology based solutions for traffic management, transport planning and design of systems</td>
<td>Strategic</td>
</tr>
<tr>
<td>Promote consumer awareness</td>
<td>Strategic</td>
</tr>
<tr>
<td>Develop zonal and regional plans and policies for mobility planning</td>
<td>Strategic</td>
</tr>
<tr>
<td>Supervise and monitor execution of projects or schemes</td>
<td>Regulatory</td>
</tr>
<tr>
<td>Purchase, lease, hold, construct, manufacture or maintain and sell, dispose of any property in connection with the performance of its functions</td>
<td>Construction/ Maintenance</td>
</tr>
<tr>
<td>Arrange financing, processing of funds for implementation of projects</td>
<td>Strategic</td>
</tr>
</tbody>
</table>

Source: UMTC, 2012
<table>
<thead>
<tr>
<th>Range of Functions</th>
<th>Type of Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>General improvement works street, road development, tracks, guideways, dedicated</td>
<td>Construction/</td>
</tr>
<tr>
<td>corridors, depots, bus stops etc</td>
<td>Maintenance</td>
</tr>
<tr>
<td>Enter into a relationship, agreement or partnership with any other body (public</td>
<td>Strategic</td>
</tr>
<tr>
<td>or pvt.)</td>
<td></td>
</tr>
<tr>
<td>Afforestation, landscaping or any other schemes</td>
<td>Construction/ Maintenance</td>
</tr>
<tr>
<td>Develop and implement uniform ticketing system for all public transport systems</td>
<td>Strategic/ Regulatory</td>
</tr>
<tr>
<td>Any other functions as prescribed by the State Govt.</td>
<td>-</td>
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</table>

Source: UMTC, 2012
Funds of UMTA

• The UMTA shall have a dedicated “Urban Transport Fund” for the purpose of implementation of the Act which shall comprise of the following
  • Corpus of Rs. (___) established by the State Govt.
  • Urban mass transit development cess on purchase of cars and commercial vehicles within the zone
  • Cess on issuance of registration certificates
  • Cess on purchase of vehicles within the zone
  • Tariff, fees and charges levied by UMTA
  • Cess payable by developer seeking to undertake construction of new residential/office/commercial complexes within the zone
  • Loans or grants to the authority by the Government
  • Money earned from investment or property acquired by or vested in the authority
  • Any other revenue source generated by the authority
  • Any other contributions made by the State or Central Govt.

Source: UMTC, 2012
### Desired Institutional framework - Tiers and functions

<table>
<thead>
<tr>
<th>Central</th>
<th>State</th>
<th>Local</th>
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<td>• Create a separate UT Ministry/department&lt;br&gt;• National policy framework, Acts, standards, guidelines, manuals&lt;br&gt;• Maintain a database and promote research&lt;br&gt;• Capacity Building&lt;br&gt;• Financial support</td>
<td>• Urban transport and Road safety board&lt;br&gt;• Policies, regulations, education, enforcement measures&lt;br&gt;• Ensure urban transport and land-use planning takes place&lt;br&gt;• Monitor city level performance</td>
<td>• Three tiered structure with MPC/DPC, UMTA and other departments&lt;br&gt;• UMTA or co-ordination cell to have authority and finances at their disposal&lt;br&gt;• Chalk out roles of UMTA and city corporation</td>
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</table>

Source: NTDPC, 2012
Way forward for Institutions

- Strengthen existing national enabling frameworks
- Create state level action plans with powers and coordinating mechanisms
- Establish coordinating mechanisms at city level with legal backing; control of funds
- Performance measurement systems at city level
- Attractive manpower and human resource policies
- Capacity creation, peer learning, research agency collaboration
Further suggested improvements in order to make most of the existing policies and programs

1. Vision to be strengthened around the land use and transport link
2. Improve the process of creating CMPs
3. Do monitoring and evaluation
4. Build capacity to implement reforms
5. Legalize UMTAs and empower cities paralley to manage their transport systems
Adequate Land Use & Transport Integration

Ahmedabad got it right
Dense Mixed Land Use + Better Walking and Biking Environments + Public Transportation

Source: http://upload.wikimedia.org/wikipedia/commons/8/8b/Ahmedabad_BRTS.jpg

Photo by: Chhavi Dhingra
CMP Re-structuring

- Policy Objectives
- Projects and Initiatives
- Impacts
- Risk Analysis
- Financing (sources, timelines)
- MRV
Monitoring performance

- Do small surveys; start immediately
- Annual activity survey (small sample)
- Modal share
  - Trip distance
  - Trip time
- Traffic fatalities from police (FIR) and hospitals
- Emission factors from the literature
- Make funding strictly conditional on performance.
Build capacity

• Create a cadre of transport professionals in the country

• Improve planning, operations, data collection and analysis capacities in cities (eg. GHG baselines to access CF)

• Develop a coherent vision for sustainable transport investment, required investment needs, and a pipeline of projects at the national and the local level

• Turn political influence on investments in favor of sustainability (local champions)
NUTP could do much more..

Transport is a state-level function as per Constitution; NUTP requires city level action and empowerment-directions for amendments

Emphasis on:

- Measurement and monitoring
- Rationalization of taxation
- Demand management
- Clear guidelines for UMTA; legal strengthening
- Alternative methods of financing for Public Transport-user charges, etc.
- Parameters to judge quality and quantity of public and non-motorized transport infrastructure for cities of different sizes and characteristics
Recommendations for JNNURM

➢ All project proposals for funding under JNNURM to clearly state how they further the goals of NUTP.

➢ Cities seeking funding must also be mandated to report key transportation-related parameters such as modal shares, air quality, accident rates, fuel consumption, etc.; Subsequent funding to be subject to these improvements. If no improvement found stop funding; previously granted funds should be turned into loans to be repaid by the city.

➢ Improve monitoring and verification mechanisms of JNNURM. Identify an apex agency with mandate to review and approve proposals for funding only if they are compliant with NUTP. Agency to review progress reports submitted by cities empowered to ask for an independent verification of the figures reported by cities.

➢ NMT to form an important part of the norms for judging progress in cities.

➢ CMPs connected to the Master Plan and budget allocations, not just a list of projects

(Sources: Tiwari 2011, EMBARQ 2012)