Urban Transport Institutions

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This is a draft paper in progress and is not meant for wide circulation or any kind of publication.
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.

The success of any sector, be it transport, education, health, or energy, depends critically on its institutions, no matter the country.
Multiple definitions

“The term ‘institution' is 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)

Institutions are “systems of hierarchical man-made rules that structure behaviour and social interaction”. They consist of established, durable and stable rules, could be social values, norms or laws. (Groenewegen et al., 2010, p.25).

Institutions are the “humanly devised constraints that shape human interaction”. (North, 1990, p. 3). These could be formal or informal, soft rules or hard rules.
Organizations vs. Institutions

“While institutions represent the rules of the game, organizations represent the players (and the arbiter) (North, 1990, p. 3–4)... Organizations together create and enforce institutions that eventually determine the pattern of economic development”. (Borner et al., 2004, p. 29)

“Organizations are groups of actors that share a common interest or goal; institutions structure and define the relationships between actors and organizations.”. (Rietveld and Stough, 2006, p. 100)
What are institutions made of?

There are 3 Integral Components of Institutions:

- Enablers
- Actors
- Functions
Enablers allow the “planning and implementation of [...] projects and programmes in a coordinated and integrated manner, provide a platform for a continuous development strategy, [...] thus ensuring consistency of means and purpose, and promote the achievement of national and local economic developmental goals and objectives” (Mbara, 2002, p. 4).
What are institutions made of? (cont’d)

Enablers could comprise:

- Law
- Policy
- Program
- Rule (formal or informal)
- Incentive, disencencetive
- Order
- Act
- Social norm, etc.
What are institutions made of? (cont’d)

Actors:

- **Enabling (government) Agencies**: Enabling agencies are those organizations and agencies that play, or should play, a “facilitating” role.

- **Service Providers**: agencies, organizations, or even individuals that provide some kind of service or set of services to people.

Source: (IFAD, 2009).
Functions: any and all roles carried out by an institution.

There are broadly four functions that institutions perform:

- Legislation
- Regulation
- Planning
- Coordination
- Monitoring and review
- Financing, taxation, fare setting
- Provision of staffing and other resources
Quiz

Which of the following is **not** an institution?

- Code for highway design
- Pollution Control Board
- Mr. Amitabh Bachchan
- Auto-rickshaw Union
- A parking lot in a mall
- Eicher map of Delhi
- Lincoln’s anti-slavery Bill
- Bribing someone
Governance

- The concept of governance encompasses institutions.
- 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.

Source: Biermann et al., 2009

- No matter how good a transport plan or policy is, their implementation is dependent on how suitable and purposeful the governance and institutional frameworks are to direct, manage, resource and deliver them.
- Examples?
Institutional analysis

- The study of the institutions at hand (of the particular infrastructure/service) with a view to understand the system and/or make it better.

- In urban transport, a sound institutional analysis can help design a robust and transparent institutional structure, which can inter-alia create and implement a comprehensive urban transport policy.
Institutional is carried out for:

- Analyzing data coming from agencies such as bus companies, hospitals, traffic police, etc. to evaluate performance of the system (efficiency, effectiveness, fairness, demand-supply)
- Examining how government agencies, schools, universities, etc. implement policies - Impact on society
- Examining relationships between various actors
- Participatory processes
- Studying how laws or organizations evolve over time
- Determining why certain agencies/individuals behave the way they do
- Understanding responsiveness of enabling agencies to feedback from users and service providers
Institutional Analysis (cont’d)

This helps to:

- Assess the capacity and behaviour of organizations that carry out reforms
- Identify constraints within an organization that may undermine policy development and implementation
- Evaluate formal institutions, such as rules, resource allocation, and authorization procedures
- Evaluate “soft” institutions, such as informal rules of the game, power relations, and incentive structures, that underlie current practices.
- Identify organizational stakeholders that are likely to support or obstruct a given reform.
Institutional Analysis to be conducted at all stages of the project/program/policy cycle.

Institutional Analysis could be done for:

- Rules, laws, policies, procedures
- Management practices, account keeping, etc.
- Finances and resources
- People and,
- Relationships
Institutional relationships (i.e. the type of relationship, interaction, and communication between different actors within an institution) assume great importance and must be well understood while carrying out institutional analysis.

The kinds of questions that need to be asked about these relationships could include:

- Is there feedback in these relationships? Does information and learning flow from one actor to another?
- How accountable are the different actors to each other?
- Are relationships transparent?
- Is there clarity on each others’ roles and responsibilities?
Doing institutional analysis usually **requires both an outsider’s perspective and insider’s knowledge** in order to ensure a holistic analysis.

The following features need to be assessed in almost any circumstance, **as they will influence strongly the way in which a particular area being analyzed “performs”**.

- **Transparency** is critical for ensuring accountability, as it allows people on one side of a relationship to determine whether actors on the other side are performing or not.
- **Accountability** is an essential feature of any of the relationships within an action area, as it allows the actors on one side of a relationship to have recourse if actors on the other side are not performing.
- **Contracts** clarify relationships and establish how they should function, and help to ensure both transparency and accountability.
Exercise

- Institutional analysis of a problem
- Clue: The starting point of an institutional analysis should be an understanding of the results produced by different institutional factors and their impact on X, Y, Z...
- Time: 25 Minutes
Popular methods of conducting institutional analysis:

- **Analytical narrative** - A narrative analysis seeks to understand institutional formation and change. It is used to investigate questions of political economy, such as political and economic governance and inter/intra state relations.

- **Institutional mapping** – An institutional mapping helps lay out who the actors are and what their motivations are. This method is usually employed to completely understand the characteristics of a particular infrastructure. This is also called ‘Institutional Relationship Analysis’.

- **Historical Institutional Analysis** – This method studies the historical evolution of a particular resource/infrastructure. A historical analysis is usually carried out to determine the reasons for and circumstances of decisions that were taken and can help provide lessons for the future in terms of planning.

- **Path Dependence Analysis** – This analysis “seeks to explain the process of how an outcome becomes selected over time, and further elucidates the relationships among different institutions” (Imran, 2010, p. 121). It can be utilized to understand decisions taken at the institutional level within a given sector.

- **Operational analysis** - This analysis provides a “detailed project roadmap” with the aim of improving system performance and effectiveness through the development/selection of appropriate equipment and infrastructure requirements and maximization of resources (TransSystems, 2012).
Methods of Institutional Analysis (cont’d)

- **Legal analysis** - This is a comprehensive analysis of both formal changes in written law as well as “institutional frameworks that shape social behaviour, which in turn explain the effectiveness of changes in the law” (Opper & Schwaag-Serger, 2008, p. 245).

- **Distributional analysis** - This is a targeted impact study to determine which groups benefit and which are most disfavoured in a given development project (Gutman, 1999).

- **Participatory approaches** - Studying level of participation in governance/decision making processes (Matsaert, 2002, p. 2).

- **Regulatory Analysis** - Analysing changes and impacts associated with controlling or directing according to rule, principle, or law, adjusting to a particular specification or requirement, adjusting (a mechanism) for accurate and proper functioning, etc.

- **Case studies** – A case study method is usually focused on business systems with a view to explain why certain systems were a success and why some ended up being a failure. It mostly concerns itself with questions of efficiency.
Urban Transport Institutions in India

Challenges
Urban Transport Institutions in India

Who/what constitutes the Actors, Enablers and Functions for urban transport institutions in India?
# Urban Transport Functions

<table>
<thead>
<tr>
<th>Urban Transport Functions</th>
<th>Central</th>
<th>State</th>
<th>Local</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>Ministry of Urban Development (MoUD)</td>
<td>Urban Development Department (UDD)( P)</td>
<td>Municipal Corporation (MC)</td>
</tr>
<tr>
<td>Transport planning</td>
<td></td>
<td>Urban Development Department (UDD)</td>
<td>Development Authority (DA) (P)</td>
</tr>
<tr>
<td>Road investment infrastructure</td>
<td>MORTH, NHAI</td>
<td>Public Works Department (PWD)(P)</td>
<td>Municipal Corporation (MC)</td>
</tr>
<tr>
<td>Road infrastructure (O &amp; M)</td>
<td>MORTH, NHAI</td>
<td>Public Works Department (PWD)</td>
<td>Municipal Corporation (MC)</td>
</tr>
<tr>
<td>Suburban rail system</td>
<td>Indian Railways (IR)</td>
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<td></td>
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<tr>
<td>Bus transport (city)</td>
<td></td>
<td>State Road Transport Corporation (SRTC)</td>
<td>Bus Corp.(MC) (P)</td>
</tr>
<tr>
<td>Bus transport service operations (regional)</td>
<td></td>
<td>State Road Transport Corporation (SRTC)</td>
<td>Bus Corp.(P)</td>
</tr>
<tr>
<td>Bus regulations and licensing</td>
<td>MORTH</td>
<td>State Transport Authority (STA) (P)</td>
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<tr>
<td>Bus terminals and depot operations</td>
<td></td>
<td></td>
<td>Bus Corp (MC)</td>
</tr>
<tr>
<td>Traffic management</td>
<td>Police (P)</td>
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<td>Municipal Corporation (MC)</td>
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<tr>
<td>Traffic engineering</td>
<td>Police</td>
<td></td>
<td>Municipal Corporation (MC) (P)</td>
</tr>
<tr>
<td>Traffic enforcement</td>
<td>Police</td>
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<td></td>
</tr>
<tr>
<td>Motor vehicle registration, safety and emission regulations</td>
<td>State Transport Authority (STA)</td>
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</tr>
</tbody>
</table>
Overall Challenges

- Under-resourced institutions, lacking in overall capacity to plan, execute, maintain and deliver affordable sustainable urban transport.
- Fragmented policy formulation and implementation with lack of cooperation among multiple ministries and transport agencies.
- Lack of finances for transport infrastructure and public transport services resulting in extensive institutional and governmental support, concessions and subsidies.
- Insufficient financial procedures and accounting/audit systems.
- Procedural constraints that impede the delivery of urban transport infrastructure and services.
- Inadequate legal and enforcement frameworks and capacities needed for urban transport and land-use developments.
- Absence of comprehensive information systems, disclosures and public participation, leading to corruptive practices.

Source: Adapted from Jain, 2011
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

Increased globalization and politicization of the urban mobility issue.

- There is a 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 (transplants), institutional reforms and political support results in limited success (eg. Delhi’s BRT)
- Similarly reducing/discouraging car usage needs strong political intervention at the ground level

Source: Adapted from UN-Habitat’s forthcoming GHRS report
Administrative and Governance Issues

- Overlapping or fragmented institutional responsibilities
- Horizontal co-ordination and vertical integration between departments has always been a challenge
- Lack of a single lead authority to provide direction and decision-making leads to chaos and confusion among other actors involved
- Regularly changing organizational arrangements
- Countless committees and meetings with many times questionable outcomes
- City governments do not see urban transport as a basic municipal service/responsibility (like water, sanitation) and hence do not work towards its planning and provision.
- Difficulties faced in improving:
  - Organizational culture
  - Organizational processes
  - Organizational capacity/skills
Multiple 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
Coordination happens at the state level rather than the city level; mostly on account of financial issues where state governments control the 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.

Attempts at creating a co-ordination body: UMTA- Unified Metropolitan Transport Authority
Administrative and Governance Issues

Functions: Issues - UMTAS

- Recommended by NUTP
- Lack of a comprehensive legislation regarding UMTAs – They are legally incomplete until such time as they are not backed up by requisite legislation.
- Need for a UMTA to be part of a larger body – either the development authority or metropolitan planning committee
- Reporting line unclear
- Need for a strong, competent individual to lead UMTA who should be a domain expert and report to the development authority head
- Rank issues within the members in the group create unnecessary delays/hassels
- Witnessed political/bureaucratic interference
Policy, planning, management and regulatory issues

- Ambiguity in policies, laws and programs (the Enablers)
- 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
- Dedicated focus to NMT is limited with very little results
- Hardly any efforts at recognition and integration of informal transport modes like paratransit into city transport
- Urban freight is a neglected issue
- Intermodal integration will require integration and coordination at the institutional level first
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 in all):
- Town and Country Planning Acts (mandated by individual states. Eg. while the Town and Country Planning Acts of Maharashtra and Tamil Nadu mandate that regional plans should include transport planning, the Karnataka Town and Country Planning Act, 1961 does not necessitate any such measures. Consequentially, the Bangalore Development Authority (BDA), has discontinued its policy of incorporating a transport plan in its master plan preparation process for the city of Bangalore.)
- 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.
National Urban Transport Policy (NUTP), 2006: first real policy intervention in the space of urban transportation for India. The policy, which is quite ambitious and holistic, suggested the following measures:

- Ensure coordinated planning for urban transport
- Ensure integrated land use and transport planning
- Focus on moving people and not vehicles
- Equitable allocation of road space
- Investments in public transport and Non-Motorized-Transport (NMT)
- Strategies for parking and freight traffic movement
- Establish regulatory mechanisms for a level playing field
- Innovate financing methods to raise resources
- Promote Intelligent Transport Systems (ITS) and cleaner vehicle technologies for cities
- Projects to demonstrate best practices in sustainable transport
- Build capacities to plan for sustainable urban transport
Policy, planning, management and regulatory issues

Issues with the 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
- Does not mandate creation of guidelines for technical and governance aspects
National Transport Development Policy Committee (NTDPC) seeks to come up with a comprehensive policy on national transport. The committee has come up with recommendations on working groups:

- Railways
- Roads
- Ports and shipping
- Urban transport
- Civil aviation

Meetings of the sub group on urban transport involved limited participation.

The recommendations are again statements of good intent.

Question: What is the relevance of this document? What does the existence of this document/committee mean for the NUTP?
First programme that brought about significant financial investments in urban areas by the central government

Envisaged “mission projects” for 65 select cities with an investment of over 1,00,000 crores (with half of that money coming from the central government)

Publicly stated aim of the programme: to make cities “investor friendly”

Programme divided into two sub-areas: Urban Infrastructure and Governance (UIG) and Basic Services to the Urban Poor (BSUP).

Different aspects within UIG relate to urban transport

Enablers: Program - JNNURM
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.
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.
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. CMP is by no means a ‘blueprint’ of the city’s development pattern.

Quick work by consultants
Non-participative process
Often biased towards promoting a certain new project or mode; instead of improving existing situation
Lack comprehensiveness- vulnerable groups, environmental concerns
Just an answer to overcome Government’s hurdle for receiving funds
Lack of capacity to implement at the city level
CMP, CTTS, MP, Budget allocation….
## EVALUATION OF CMPs AS PER TOOLKIT CHECKLIST

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</tbody>
</table>

**A – Adequate**  **P – Partial**  **N - Negligible**

Source: M.L Chotani, Director-cum-member Secretary, Association of Municipalities & Development Authorities, Dec 2010 (IUM)
Popularization of motor vehicles has drastically reduced NMT in India.

At one point, close to 72% of commuters in Bangalore used NMT in one form or another. Today that figure stands at less than 2%.

Cities becoming increasingly unfriendly to bicycles, rickshaws and pedestrians.
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: Planning – Land Use and Transport

▶ Traditionally no formal coordination between land use planning and transportation

▶ British imposed zoning laws that divided residential and work areas, resulting in increased trips and trip lengths, urban sprawl, and increased personal vehicles.

▶ Recent realization: need for mixed land use and switch from private to public transport

▶ 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”
Policy, planning, management and regulatory issues

Functions: Planning – Land Use and Transport (cont’d)

- 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.
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

Area sabhas linked to voting rights.
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.
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 Holdings by Urban Bus Corporations</th>
<th>Bus Holdings</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></td>
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<td>2004-2005</td>
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<td>16120</td>
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2011-12 PUNE TRANSPORT SECTOR BUDGET

Break up of Transportation Budget

Source: Parisar Budget Analysis 2011-2012
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
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 tend 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 often 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
   • Step in the right direction – should be encouraged
   • Need constant review of the courses to make sure that they are relevant and up to speed on the current trends in transport planning.
   • Need to ensure that they teach and promote integrated transport modes and do not become the vehicle to support a single mode of transport (as has been sometimes evidenced)

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

- Measurement and monitoring
- Rationalization of taxation
- Demand management
- Clear guidelines for UMTA; legal strengthening
- Alternative methods of financing for Public Transport
- 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)
Case study: Legal Analysis

Victoria’s Transport Integration Act
Case study: Victoria, Australia

- Australia’s smallest and most densely populated state
- Located in the south-eastern corner of the continent
- Major cities include: Portland, Melbourne, and Bendigo
- Population of close to 6 million people in 2011
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
- Lack of accountability
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
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.
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”)
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.

- 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 in making important or high risk decisions.
Case study: Path Dependence

Tracing the Evolution of Lahore’s City Master Plans
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
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.
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
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
# Capacity Analysis 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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<tbody>
<tr>
<td></td>
<td>HR capacity</td>
<td>Financial capacity</td>
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<tr>
<td>Planning and Development (P&amp;D)</td>
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<tr>
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<td>Transport Department (TD)</td>
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<tr>
<td>Traffic Engineering and Transport Planning Agency (TEPA)</td>
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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
Case study: Bangalore, India

Bangalore
Overview of institutional set-up of transportation - Bangalore

Source: EMBARQ, 2013 (figure by Vivek Vaidyanathan)
The way ahead
Going forward...

- Reforms: Where do we start from?
- How should Functions be divided between Centre, State and City?
- What else should be done?
EMBARQ’s mission is to catalyze and help implement environmentally and financially sustainable transport solutions to improve quality of life in cities.

Centers work together with local transport authorities to reduce pollution, improve public health, and create safe, accessible and attractive urban public spaces.
Thank you