Policy Coordination in Urban Transport Planning: Some Experience from Asia- Nepal and Japan

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Policy coordination for urban transport: Typology and complexity

Hierarchical system
- Vertical coordination
- Between national and local/city governments

Multiple sub-systems
- Sectoral coordination
- Among transport modes
- Transport and land-use

Network infrastructure
- Covers multiple administrative units
- Horizontal coordination
### Tokyo MA vs others: Modal split

#### All purpose- all modes

- **Car**
- **Bus**
- **Rail**
- **Bicycle**
- **Walk**
- **Others**

**Paris MA (2008)**

**London MA (2006)**

**New York MA (2001)**

**Tokyo MA (2008)**

#### All purpose- motorized modes only

- **Private**
- **Public**

**Paris MA (2008)**

**London MA (2006)**

**New York MA (2001)**

**Tokyo MA (2008)**

#### Commuting- all modes

**Paris MA (2008)**

**London MA (2006)**

**New York MA (2001)**

**Tokyo MA (2008)**

#### Commuting- motorized modes only

**Paris MA (2008)**

**London MA (2006)**

**New York MA (2001)**

**Tokyo MA (2008)**

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Data source: person trip survey from respective public agencies; Metropolitan Area definition- New York (10 counties of NY State), Paris (Ile-de-France), London (Greater London), Tokyo (Tokyo and 3 surrounding pref)  Data year is indicated in the parenthesis after the name of each MA;  For Paris, Rail also includes Bus.
<table>
<thead>
<tr>
<th>System</th>
<th>Route Length (km)</th>
<th>Averg. Daily passenger (‘000)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subway</td>
<td>357.5</td>
<td>9,240.4</td>
<td>• City governments (45% route) • Tokyo metro (55% route)</td>
</tr>
<tr>
<td>JR</td>
<td>887.2</td>
<td>15,440.0</td>
<td>Formerly national rail, now privatized</td>
</tr>
<tr>
<td>Pvt Rail</td>
<td>1157.9</td>
<td>13,558.6</td>
<td>• 15 pvt companies • Commuter lines</td>
</tr>
<tr>
<td>Bus</td>
<td>17,670.3</td>
<td>4,363.0</td>
<td>• City governments • Private operators • Mainly feeder to railway</td>
</tr>
<tr>
<td>Tram</td>
<td>17.2</td>
<td>108.7</td>
<td>Main mode in the city core until the system was phased out in 1960s</td>
</tr>
</tbody>
</table>
National and city level coordination in Japan: major instruments

- Planning institutions
  - National level strategy/planning- provides guidelines for local level
- Most regulatory policy decision at the national level- implementation through local level (may involve incentives)
- Local roads and facilities for road-based public transport- responsibility of local government
- Master plan for urban railway- national and local governments
- Land-use plan, bus service regulation, traffic impact assessment- local government
- Cost sharing for infrastructure
- Urban rail projects: entities with national and local government share holding
- Loaning of national government staff to local government- effective coordinating mechanism
Trend of the Transport Policy in Japan

~ 1950  Development of Extensive Urban Railway Network

1950’s  Expansion of Transportation Network

1960’s
- Improvement of Terminal (Rail, Bus)
- Direct Operation between Subway and Suburban Rail etc.

1970’s
- New Transportation Systems
- Transportation System Management
- Rail – Bus Transfer Terminal, etc.

1980’s
- Transportation Demand Management
- Privatization of Japan National Railway

1990’s
- Public – Private – Partnership
- Incentive Scheme for Private Railway

2000’s
- Coordination Scheme for Transport Industries

Important role of local governments in implementing these policies
## Capital subsidy for urban railways: burden sharing between central and local government

<table>
<thead>
<tr>
<th>Subsidy for Newton Railway</th>
<th>Central Government</th>
<th>Local Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>: Construction cost</td>
<td>15%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Subsidy for Subway:
- Construction cost: 35%
- Infrastructure for Monorail: 30%
- Track, Station etc. for LRT: 33%

Subsidy for grade separation of rail and road crossing:
- 28.7% - 63.3%
- 57.3% - 31.6%

Source: Prof. Shigeru Morichi, undated presentation document
Local government capacity, Japan

- Dedicated taxes, such as property tax, part of fuel and automobile taxes (earmarked for road construction until 2009)
- Central government transfer
- Local government’s capacity to initiate innovative policies (such as promoting EVs, compact cities, mobility management etc)
- Value capture- pioneered by private railways (local government’s cooperation on land use plan)
  - Coordination by market!
  - Central government helped “by not making mistake” of nationalizing private railways
Property tax in selected countries, 2009

Data source: OECD.Stat for OECD countries (data year 2009); Bird and Slack (2002) for Indonesia and Philippines (data year 1999)
Land price variation by distance from railway station (Mitaka station, Tokyo suburb), 2011

..incentive for local government to promote railway investment (w/o subsidies)
Newtown Development in Tokyo MA

- Planned Area: 2980 ha
- Planned population: 342,200
- 2002 population: 200,000
- Housing open: 1976
- Rail route: Branch line extension from two existing private railways

- Planned Area: 1993 ha
- Planned population: 200,000
- 2002 population: 70,000
- Housing open: 1984

Degree of success depended on cooperation from local government?
Urban transport in Nepal

**Only road modes**
- **Public transport**
  - Bus, mini-bus
  - Micro-bus
  - Three-wheelers (electric, CNG)
- **Private motorized modes**
  - Cars
  - Motorcycles
- **Non-motorized**
  - Rickshaw
  - Bicycles
  - Walk

Source: KSUTP 2013
Public Transport vehicles in Kathmandu

Large Bus: 320
Tempo (3W): 913
Mini/Micro-bus: 4072
Policy coordination - Nepal

- Coordination problems on all aspects
  - Vertical coordination, horizontal coordination, and network coordination
- Policy responsibility for urban transport primarily lies on central government agencies
- Ministry of infrastructure and physical planning - policies for infrastructure and public transport operation
  - Implementing departments
    - Department of roads: road infrastructure
    - Department of transport management: Public transport route permit, fare regulation
- Ministry of Urban Development - Urban planning and land-use
  - No consideration for urban transport
- Traffic management/control - by traffic police
- “Self-regulation” for coordinated operation by operators’ syndicate!
Capacity of local government

- Weak revenue base of city government- mostly rely on block transfer from central government
- Lack of technical capacity even for urban planning, let alone transport policy/planning
- City government under Ministry of local development
- City government’s roles: enforcing building codes (no transport consideration), local roads, side walks, public parking
- No urban transport management related roles except some cities manage public parking area
- New constitution for federal structure is expected to give more authority to local governments.
Dominant role of public transport operators

- Numerous operators
- Syndicates of operators
- Uncoordinated routes
- Poor (or no!) information on public transport
- Some vehicles are not suitable for urban public transport or for designated routes—regulatory omission?
Recent initiative: example

- **ADB funded project: Kathmandu Sustainable Urban Transport Project (KSUTP)**
- **Four components**
  - **Public Transport**
    - Regulatory support to Industry and Department of Transport Management (DOTM)
    - Route restructuring (implementation of two pilot routes)
  - **Non-motorized transport (pedestrianization and walkability)**
    - Improve infrastructure (pedestrianization of 8km, side walk etc)
    - Capacity building for Kathmandu Metropolitan City
  - **Traffic management**
    - Improvement of 14 intersections in Kathmandu city center (DOR)
    - Capacity building program for Traffic Police Department
  - **Air quality management**
    - Support to Ministry of Environment, Science and Technology
Conclusion

- Well defined legal mandate is important for national local coordination: necessary but not sufficient condition!
- Needs coordination instruments: incentives from national government, revenue base of local government, staff exchanges, private sector’s role, donor’s catalytic role for developing countries
- Awareness for sustainable transport at the citizen’s level
THANK YOU!