Review of Urban Transport Sector Strategy
Asian Consultation Workshop
Lessons from Japanese and Asian Experiences
Shizuo Iwata
ALMEC Corporation
11 December 2000
Yokohama, Japan
Topics

- Challenges facing Asian cities
- Lessons from their experiences
- Suggestions
## Urbanization Process

### % of urban population

<table>
<thead>
<tr>
<th>Country</th>
<th>1970</th>
<th>1990</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thailand</td>
<td>13</td>
<td>23</td>
<td>37</td>
</tr>
<tr>
<td>Indonesia</td>
<td>17</td>
<td>31</td>
<td>48</td>
</tr>
<tr>
<td>Philippines</td>
<td>33</td>
<td>43</td>
<td>56</td>
</tr>
<tr>
<td>Malaysia</td>
<td>27</td>
<td>43</td>
<td>58</td>
</tr>
<tr>
<td>Japan</td>
<td>71</td>
<td>77</td>
<td>79</td>
</tr>
<tr>
<td>UK</td>
<td>89</td>
<td>89</td>
<td>91</td>
</tr>
</tbody>
</table>

### Motorization

### Industrialization & economic growth
Mega Cities in East Asia

### Population

<table>
<thead>
<tr>
<th>City</th>
<th>1995</th>
<th>2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tokyo</td>
<td>26.8</td>
<td>26.7</td>
</tr>
<tr>
<td>Shanghai</td>
<td>26.3</td>
<td>26.3</td>
</tr>
<tr>
<td>Beijing</td>
<td>22.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Seoul</td>
<td>19.5</td>
<td>19.5</td>
</tr>
<tr>
<td>Jakarta</td>
<td>14.9</td>
<td>14.9</td>
</tr>
<tr>
<td>Tianjin</td>
<td>10.7</td>
<td>10.7</td>
</tr>
<tr>
<td>Osaka</td>
<td>10.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Bangkok</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>Manila</td>
<td>9.3</td>
<td>9.3</td>
</tr>
<tr>
<td>Dhaka</td>
<td>7.8</td>
<td>7.8</td>
</tr>
<tr>
<td>Yangon</td>
<td>3.9</td>
<td>3.9</td>
</tr>
</tbody>
</table>

### Expansion of Urban Area for Metro Manila

- Urbanized Area
  - 1948: 83km
  - 1966: 221km
  - 1975: 323km
  - 1996: 788km
  - 2015: 1512km (estimated)

Metro Manila Boundary
The urbanization process facing Asian cities is different from that of developed countries and other regions.

Urban transport has affected the structure, performance and livability of cities.

There is a growing interest in and need for new approaches to sustainable urban development including urban transport as a key component.
Emerging Issues

- urban growth and poverty
- road development and its management
- public transport development
- environment
- safety
- urban transport financing
- institutional development
Managing the Growth of Mega Cities

- A mega city of 30 million with high productivity
- Costs and risks are high
- Rail-based urban expansion with strong CBD
- Strong commitment to economic growth
- Flexible planning, project implementation institutions and government support
- Mechanism to encourage active participation of private sector
Kuala Lumpur’s Experience

- regional integration strategy
- high standard primary road network
- large-scale urban development based on vast public land and effective development control
- effective metropolitan-level planning and urban growth strategy
- difficult shift from private transport to public transport
Singapore’s Experience

- highly integrated urban system with efficiency and amenity
- globally competitive urban system
- clear vision statement and continuity of policy
- strong governance and management capacity

- the experience is difficult to replicate but provides useful lessons
Curitiba’s Experience

- realization of competitive transit based urban system
- innovative bus system
- effective integration of transport, urban and environment
- clear vision and consensus among stakeholders
- continued policy commitment
- capable planning institution
- system is practical and applicable to Asian cities with modifications
Metro Manila, Bangkok & Jakarta

- rapidly expanding/sprawling urban area
- absolute lack of roads and transport facilities
- while congestion in the city center is attended to, little is done in rapidly expanding suburban areas
- no agreed vision/strategy and scarce resources
- need to formulate an effective long-term strategy and to institutionalize the process
- need to focus on transit oriented urban system
Private Sector Potential

Subdivision Development in Suburban Areas in MManila

Comprehensive Development in MManila by private sector initiative
Public Transport Development Models
Tokyo: MRT + walking

Coverage of MRT

Underground Footpath Network in CBD

walking distance
- 5mins (r=400m)
- 10mins(r=800m)

JR Yamanote line
Other Railway lines
Public Transport Development Models
Metro Manila: Paratransit Combinations

Bus

Jeepney

Tricycle
Comprehensive Approach in Singapore (Pool of Knowledge)

- Integrating landuse, town and transport planning
- Developing a comprehensive road networked maximizing its capacity
- Providing a quality public transport system
- Managing demand of road usage through ownership and usage measures

- The use of ITS
  - Green Link Determining System
  - Expressway monitoring & Advisory System
  - Traffic Monitoring Using Taxi Proves
  - Traffic Smart – Integration of traffic information

- Quality public transport system
  - MRT system and LRT systems
  - Bus system, taxi
  - Transit smart – Integration of public transport information
  - Enhanced Integrated Fare System

- Demand Management
  - Vehicle Quota System
  - Road Pricing System (Electronic Road Pricing, Area Licensing System)
Areas in a city are not homogeneous, requiring different solutions and strategies.
## General Transport Development Strategies

<table>
<thead>
<tr>
<th>Area</th>
<th>Urban Road Development</th>
<th>Traffic Management</th>
<th>Public Transport Development</th>
<th>Urban Development</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CBD</strong></td>
<td></td>
<td></td>
<td></td>
<td>• mass transit</td>
</tr>
<tr>
<td></td>
<td>• minor improvement</td>
<td>• circulation</td>
<td></td>
<td>• walking</td>
</tr>
<tr>
<td></td>
<td>• missing link</td>
<td>• parking</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• demand management</td>
<td></td>
<td></td>
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<tr>
<td><strong>Corridors</strong></td>
<td></td>
<td></td>
<td></td>
<td>• integrated commercial/business facilities</td>
</tr>
<tr>
<td></td>
<td>• widening</td>
<td>• prioritized traffic flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• distributors</td>
<td>• road side activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Suburban Areas</strong></td>
<td>• network development</td>
<td>• separation from through traffic</td>
<td>• access to key public transport routes</td>
<td>• Planned development (new towns, industrial estates, etc)</td>
</tr>
</tbody>
</table>
Integrated Development

- **Integration of transport strategy with other urban strategies** *(economic development, poverty, land and housing, urban services, environment, disaster management, financing, human development)*

- **Institutional integration** *(agency coordination, public-private sector role sharing)*

- **Modal integration** *(operation, management, facilities, non-motorized transport, walking)*
A wide spectrum of transport modes is obtainable that can provide varied services. Local conditions and required services.
Integrated Development

Bus terminal + Community center (Curitiba)

Bus terminal + Railway station + Commercial/office complex (Fukuoka)
Public Transport Development Approach

- Management of motorcycle is important
- Control of motorcycle ownership

- No issuance of plate number (30 cities<)
- Public bidding of plate number (several cities)
- No issuance of plate number to 2-cycle engine (6 cities)
- Ban on more than 2 passengers (a few cities)
- Increase in registration fee (several cities)
Approach to Urban Roads Development

- Guided development in support of statutory city structure plan
- Land readjustment
Urban Environment

- Air quality
- Noise
- Flooding
- Wastes
Transport Safety

- Traffic accidents
- Enforcement
- Social awareness
- Security
Financing Urban Transport

- **Budget envelope of the Government**
- **Funding for road development and maintenance**
- **Funding for MRT / LRT systems**
- **Funding for bus system**
- **Possible fund sources**
- **Role of the private sector**
Strategic Planning

The revised planning process must:

- **be outcome-based, linked to the political process and open to all stakeholders.**
- **link land-use planning, human and natural environments, quality-of-life issues, and the global economy.**
- **determine what must be planned and not planned.**
- **be institutionalized and monitorable.**
Long-term Commitment

- Continuity of policy
- Coordinated donors support with long-term prospective
A series of comprehensive transport studies conducted in the early 1970’s, early 1980’s and 1996.

A series of feasibility studies on roads and urban rail projects following the comprehensive plans conducted during 1970s and 1980s.

Financing primary roads (total 60 kms.), flyovers, missing links and road rehabilitations.

Traffic management in city-wide scale.

LRT line 1 capacity expansion and line 2 construction.

PNR commuter rail service for National Center for Transportation Studies (University of the Philippines).

Dispatching transport experts to assist transport and urban planning / development agencies.

Overseas training of transport personnel in Japan.
Some Suggestions

- establish an effective planning mechanism which ensure participatory and holistic approach
- operate doable pilot scheme in key focal areas and scale up
- strengthen network with other cities to share knowledges