SUSTAINABLE URBAN TRANSPORTATION, A TARGET OF VIETNAMESE CITIES/TOWNS

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Association of cities of Vietnam

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I. Introduction

The transportation system helps to shape the urban structure. It is the economic blood line that has a huge effect on urban system. The sustainable urban transportation planning is closely related to sustainable urban development. Key issues in sustainable urban transportation planning include:

- Economic issues
- Social issues
- Environmental issues
Introduction of Association of cities of Vietnam
Overview of public transport in Vietnamese cities

Rate % of public transport use in cities/towns by regions in Vietnam

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Northern Mountainous Midland</th>
<th>Red River Delta</th>
<th>Central Northern and Coastal Region</th>
<th>Central Highland</th>
<th>Southeastern Region</th>
<th>Mekong Delta Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of passengers using public transports (buses and taxi) %</td>
<td>5,66 %</td>
<td>12,32%</td>
<td>5,73%</td>
<td>10,25%</td>
<td>4,55%</td>
<td>8,72%</td>
</tr>
</tbody>
</table>

Source: Vietnam Urban Observation System Project funded by UN HABITAT

Currently 20/63 (32%) cities/provinces are developing the Bus Public Transit Plan. This shows that the local governments are not too interested in Public Transit development in general and Bus Transit in particular. (Reported by the Ministry of Transportation 2014)
Tình hình sử dụng GTCC tại hai thành phố lớn ở Việt Nam

Các loại phương tiện giao thông sử dụng tại hai TP đặc biệt của Việt Nam

<table>
<thead>
<tr>
<th>Thành phố</th>
<th>Xe buýt %</th>
<th>Xe ô tô con %</th>
<th>Xe máy và xe đạp %</th>
</tr>
</thead>
<tbody>
<tr>
<td>TP Hà Nội</td>
<td>11</td>
<td>5</td>
<td>84</td>
</tr>
<tr>
<td>TP Hồ Chí Minh</td>
<td>9</td>
<td>6</td>
<td>85</td>
</tr>
</tbody>
</table>

TP Hải Phòng, Đà Nẵng, Cần Thơ: 1-1,2%; các tỉnh, thành phố còn lại nhỏ hơn 1%. (Theo báo cáo Bộ GTVT 2014)
Hochiminh City
Hanoi City
Context of Hanoi: population growth and the transit situation

- Hanoi population grew 3 times as much as that 20 years ago (1990: 2.2 million, 2009: 6.5 million)
- Birth rate: 3.5%/year
- Estimated population
  - By 2020: 7.3 – 7.9 million
  - By 2030: 9 – 9.2 million
- Population growth leads to the urban extension
- Hanoi – majority vehicles are motorbikes
  - 63 % are motorbikes
  - 25 % are bicycles
  - 5 % are cars
  - 7% are buses
Insufficiencies

PLANNING

- Irrational planning structure
- Lack of roads in both terms of length and land size for road development
- Uneven allocation of road network
- Unclear classification of roads
- Lack of connectivities in street roads, such as looping and centripetal, internal and main road routes due to the uncompleted secondary roads
- Lack of parking areas
- Lack of walking space
Insufficiencies

TRANSPORT ORGANIZATION

• Uncontrolled Developing Private Transit Means
• Limited Public Transit Means
• Ineffective traffic nodes (lack of left turn light with unreasonable cycles of lighting)
• Unstrict rules for fining

COMMUNITY PARTICIPATION AND STAFF CAPACITY

• Limited awareness of the people in traffic using
• Limited staff capacity in traffic organization that can not meet the more and more complicated requirement
I. ĐẶT VẤN ĐỀ

HIỆN TRẠNG MẠNG ĐƯỜNG HÀ NỘI
MẶT ĐỘ VÀ TỈ LỆ DIỆN TÍCH ĐƯỜNG
CÁC QUẬN NƠI THÀNH
The complicated process of Hanoi to solve its traffic problems

- COVERING T - JUNCTIONS, INTERSECTIONS (2009)
- CHANGES IN WORKING, SCHOOL TIMES (2010)
- INSTALLING LIGHT FLYOVERS (2012)
- DEVELOPING BRT (2013)
- DEVELOPING URBAN HIGH RAILWAY
Installing light flyovers in Hanoi
Installing cameras at traffic nodes
The study is based on the Master Plan for Hanoi City by 2030, vision by 2050

- Developed looping and centripetal roads
- Upgraded existing roads
- Building new bridges over Red River
- Extended Public Transit System – metro routes with high and underground parts
Urban Railway – Public Transit System by 2030
Solutions to Hanoi Traffic Jams

The BRT and two routes of urban railways
ISSUES IN DEVELOPING HIGH CAPACITY PUBLIC TRANSIT ROUTES
Public Transit Oriented Development

Transit Oriented Development (TOD) means

- It is located within 0.5 miles (0.8 km) surrounding the public transit stops
- It is connected to the road network allowing walking and motorbiking activities
- It comprises of a diversity of uses such as retails, residence, working etc.
- Parking is well organized – behind buildings, far away from pavements, low capacity
- It has different types and sizes of residential products
- It has a reasonable density of population
How to develop a “Public Transit Oriented City?”

- Improving bus services
- Building train railways/undergrounds
- Limiting the use of motorbikes and cars

→ Policies in transportation are necessary, but there still needs the coordination between two sectors of “Transportation” and “Land Use”.

Investment and policies in transportation will have impacts on traveling, connectivity and accessment.

The existing and future types, locations, scopes of land use has huge impacts on transportation.
Process of integration for TOD)  
(Spacial Development Strategy)

The residents in the badly organized urban development areas may be out of use of public transit due to low accessibility. → investment in public transit can not have payback

Houses need to be located surrounding public transit stations  
→ There is a need to develop residential, commercial functions in a same location improve the people accessibility
BRT connects other public transits - Bike parking areas in Guangzhou City
Safety for cyclers, passengers
Bike parking lots along BRT routes
WB funded project

*Urban Transportation Development in Hanoi City*

**The Component** “Supporting Hanoi Department of Planning and Architecture (HDPA) in Urban Planning (bid # CS05 CS05 (03/HP2-TV)”

**Challenges for Hanoi**

- There is no consideration of TOD in urban transportation planning. Thus the coordination between transportation planning and land use in zoning and detail plans will have challenges in implementation.
- There is no completed paths for biking
- There is no convenient walking sides

As a result, the effectiveness of using high capacity public transit routes will not be high that affects investment effectiveness.
Conclusion

- Motobike transportation and pavement economy is a typical character of almost Vietnamese cities/towns.
- Public Transit Oriented Development – TOD should be pay attention to during the process of urban planning. This is a big change in the mindsets of planners and developers.
- Out of all means of transport, high capacity public transit is preferable for highly dense residential areas with centralized economic activities. It is only effective when they have enough volume of passengers.
- As a result, along public transit routes should have a large number of residents working and living.
- TOD is the key to big Vietnamese cities need to vision to.
Thank you for your listening