PPP Models for Sustainable Urban Development

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Growth of Metropolitan Regions in Southeast Asia

Population [unit: 1,000 people]

- Jakarta (Indonesia)
- Bangkok (Thailand)
- Kuala Lumpur (Malaysia)
- Yangon (Myanmar)
- Ha Noi (Viet Nam)
- Tokyo (Japan)

### Tokyo – World’s Largest but Sustainable Metropolis

<table>
<thead>
<tr>
<th></th>
<th>Urban Area</th>
<th>Country</th>
<th>Population</th>
<th>Area (km²)</th>
<th>Population Density (People/km²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tokyo – Yokohama</td>
<td>Japan</td>
<td>37,555,000</td>
<td>8,547</td>
<td>4,400</td>
</tr>
<tr>
<td>2</td>
<td>Jakarta</td>
<td>Indonesia</td>
<td>29,959,000</td>
<td>3,108</td>
<td>9,600</td>
</tr>
<tr>
<td>3</td>
<td>Delhi</td>
<td>India</td>
<td>24,134,000</td>
<td>2,072</td>
<td>11,600</td>
</tr>
<tr>
<td>4</td>
<td>Seoul – Incheon</td>
<td>Korea</td>
<td>22,992,000</td>
<td>2,266</td>
<td>10,100</td>
</tr>
<tr>
<td>5</td>
<td>Manila</td>
<td>Philippines</td>
<td>21,710,000</td>
<td>1,580</td>
<td>14,400</td>
</tr>
<tr>
<td>6</td>
<td>Shanghai</td>
<td>China</td>
<td>22,650,000</td>
<td>3,626</td>
<td>6,200</td>
</tr>
<tr>
<td>7</td>
<td>Karachi</td>
<td>Pakistan</td>
<td>21,585,000</td>
<td>945</td>
<td>22,800</td>
</tr>
<tr>
<td>8</td>
<td>New York</td>
<td>U.S.</td>
<td>20,661,000</td>
<td>11,642</td>
<td>1,800</td>
</tr>
<tr>
<td>9</td>
<td>Mexico City</td>
<td>Mexico</td>
<td>20,300,000</td>
<td>2,072</td>
<td>9,800</td>
</tr>
<tr>
<td>10</td>
<td>Sao Paulo</td>
<td>Brazil</td>
<td>20,273,000</td>
<td>2,849</td>
<td>7,100</td>
</tr>
</tbody>
</table>

Source: Demographia, 2014. “Tokyo-Yokohama” includes large areas of Tokyo, Yokohama, Chiba and Saitama prefectures and smaller areas of Gunma, Tochigi and Ibaraki prefectures.

How to guide public and private investment to create a sustainable and livable metropolis?

→ The keys are “TOD” and “LVC”!
TOD (Transit-Oriented Development): Urban planning principles that promote urban development along transit stations.

What is a TOD model?

- Time Saving
- Energy Saving
- Space Efficiency
- Infrastructure Cost Saving
- Functionality
- Agglomeration Economy
- Synergy & Creativity

Social
- Access to Jobs and Services
- Affordable Housing

Economical
- Time Saving
- Energy Saving
- Space Efficiency
- Infrastructure Cost Saving
- Functionality
- Agglomeration Economy
- Synergy & Creativity

Accessibility & Mobility
- Access to Jobs and Services
- Affordable Housing

Environmental
- Air Pollution Reduction
- CO2 Reduction
- Land & Green Preservation
- Biodiversity

Source: Mr. Hiroaki Suzuki

Shiodome, Tokyo
Source: jpri.kyodo.co.jp

Kashiwanoha, Chiba
Source: www.city.kashiwa.lg.jp
TOD Model Embedded in Japanese Cities

Zoning Map of Toyota City

Source: www.city.toyota.aichi.jp

Tokyo Metropolis as Walk-able Urban Cells with Stations

Source: MLIT

Share of transportation

<table>
<thead>
<tr>
<th></th>
<th>Tokyo Metropolitan Area</th>
<th>Tokyo Central Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>others</td>
<td>41</td>
<td>31</td>
</tr>
<tr>
<td>car</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>railway</td>
<td>30</td>
<td>48</td>
</tr>
</tbody>
</table>

Source: Nikken Sekkei Ltd.
What is a LVC model?

LVC (Land Value Capture): Financial and regulatory mechanisms by which the proceeds from increased land value will be spent for financing infrastructure development.

<table>
<thead>
<tr>
<th>Instrument</th>
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<tbody>
<tr>
<td><strong>Tax- &amp; Fee-Based</strong></td>
</tr>
<tr>
<td>Property and Land Tax</td>
</tr>
<tr>
<td>Betterment Levies and Special Assessments</td>
</tr>
<tr>
<td>Tax Increment Financing (TIF)</td>
</tr>
<tr>
<td><strong>Development-Based</strong></td>
</tr>
<tr>
<td>Land Sale or Land Lease</td>
</tr>
<tr>
<td>Air Right Sale</td>
</tr>
<tr>
<td>Land Readjustment</td>
</tr>
<tr>
<td>Urban Redevelopment Schemes</td>
</tr>
</tbody>
</table>

Source: Adapted from Suzuki, Murakami, Hong and Tamayose, 2015 (forthcoming), “Financing Transit-Oriented Development with Land Values: Adapting Land Value Capture in Developing Countries”
LVC instrument: Land Readjustment
Landowners pool their land together for reconfiguration and contribute a portion for sale to raise funds to pay for public infrastructure. This can be used as an instrument to finance transit line and station development.
Integrated Suburban Development by Railway Companies

Tama Garden-City developed by Tokyu Corporation

Population: 0.6 million
Land Area: 50 km²
Stations: 27

Source: Tokyu Corporation

Operating Profit of Tokyu Corp. (2013)
**LVC instrument: Urban Redevelopment**

Landowners together with a developer establish a cooperative entity to consolidate land parcels and develop buildings with new access road and open space. To capture the potential accessibility benefits conferred by a transit station, the local government converts zoning codes to allow high-rise and mixed-use buildings.

Source: Adapted from Ministry of Land, Infrastructure, Transport, and Tourism 2013
**LVC instrument: Air Right Sale**
A regulatory arrangement that enables a landowner to transfer or “sell” portion of its unused air development right (i.e. additional Floor Area Ratio to develop a taller building) to an adjacent parcel or to a landowner in the designated project area.

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**Tokyo Station (Marunouchi, Tokyo)**

- **Standard FAR**: 1300%
- **Tokyo Building**: 1702%
- **Shin-Marunouchi Building**: 1760%
- **Marunouchi Park Building**: 1530%

Source: Mitsubishi Estate Co. Ltd.
Key Factors for TOD-LVC Implementation

1. **Urban master plans:** A long-term vision that guides urban planning and transportation infrastructure development must be shared by all stakeholders.

2. **Zoning regulations and enforcement:** Zoning flexibility should be given to local authorities to increase LVC premium and facilitate negotiations among stakeholders.

3. **Public-private collaboration:** Coordination among government authorities (local, national, transit operator) and private entities (landowners, developers, etc.) is essential.

4. **Socio-economic conditions:** Economic growth and urban population growth is a key to realize LVC. Even in slower growth, potentials to maximize agglomeration premium still remain.
Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Organisation for Economic Co-operation and Development (OECD) jointly organized the **Policy Forum on Urban Development and Green Growth** in October 2014.

The objectives of the Forum were to share Japan’s experience on Transit-Oriented Development (TOD) and other urban development practices with Asian cities and to discuss how to collaborate for sustainable urban development.

**Date and Venue:** 14-16 October 2014, Tokyo

**Participants:** About 110 participants including representatives from national and local governments from ASEAN countries (Vietnam – including Construction Vice-Minister, Myanmar – including Yangon Mayor, Malaysia, Indonesia, Thailand), Japanese private companies (construction, design firms, developers, etc.), international organizations (JICA, World Bank, UN-Habitat, UNCRD, etc.)

**Outcomes:** The dynamic discussions were held in three sessions below. At the result of discussions, MLIT and OECD shared the Chairs’ Summary, which presented the recommended future actions for participants. In second day, a site tour was offered to ASEAN participants to guide some of major urban development sites (Marunouchi area, Toranomon Hills, Shimizu Construction HQ eco-building).

**Session 1: Policy Dialogue**
**Identifying Opportunities for Urban Green Growth**

**Session 2: Public Private Roundtable**
**Sharing of a Variety of Japan’s Practices**

**Session 3: Collaborative Actions**
**Collaborative Actions for Sustainable Urban Development in Asia**

Remarks of Yangon Mayor (Myanmar)

Presentation of a Japanese developer

Closing by MLIT State Minister and OECD Director
City Tours for Ambassadors in Tokyo

Ministry of Land, Infrastructure, Transport and Tourism (MLIT), jointly with Ministry of Foreign Affairs, organizes “city tours” to introduce good urban development practices for Ambassadors in Japan.

The objectives of the tours are to familiarize the Ambassadors with the advantages of urban development in Japan, such as public-private partnerships, environmental consideration and disaster resilience, and to enhance business opportunities for Japanese urban developers abroad.

The first City Tour on 27 Nov 2014

Participants: Ambassadors and mission staff from 10 countries in Southeast and Southwest Asia (Bangladesh, Indonesia, Malaysia, Maldives, Nepal, Pakistan, the Philippines, Singapore, Thailand, Vietnam). The tour visited the following three sites:

1. Kashiwanoha Smart City
   The next-generation complex development aiming at ecology, health and innovation with public-private-academic cooperation. Guide provided by Mitsui Fudosan Co., Ltd.

2. Shimizu Corp. Headquarters Building
   Super-energy-efficient and ecological office building with business continuity functions in case of disasters. Guide provided by Shimizu Corp.

3. Marunouchi Central Business District
   Comprehensive CBD development with PPP linked with the government’s urban renaissance policy. Guide provided by Mitsubishi Estate Co., Ltd.

A reception was hosted after the tour with the participation of 30+ infrastructure-related companies.

The first tour was well received by the participants.

“We’d like to introduce step-by-step the excellent Japanese practices such as smart cities.” (Vietnamese Ambassador, in responding to an NHK interview)

The second tour is now under planning
Conclusions

- TOD-LVC models are among the most effective development models to guide and achieve sustainable urban development with the public-private partnership (PPP).

- The rapid population increase and robust economic growth in developing countries are favorable for implementing TOD-LVC models.

- Cities in developing countries, particularly those in middle-income countries, can benefit from Japan’s experience.
Thank you very much.