Response to questions on Japanese experience

- Inter-jurisdictional role-sharing for urban service delivery
- Upstream versus downstream – sharing responsibilities
- Land development control for integrated water management
- Plan continuity and political influence

Contact Point

Yuko Okazawa, Urban Specialist, TDLC, SURR, WBG

yokazawa@worldbank.org
Administrative Hierarchy in Japan

- 8 regions and 47 prefectures (includes cities, towns, villages)

- The nation is currently undergoing administrative reorganization, merging cities, towns and villages to cut administrative costs in the face of an aging society.

- There is no administrative body at the “regional” level; national direction and spontaneous collaboration of entities is critical.
Role Sharing for Urban Service Delivery

Water supply and drainage, solid waste management are primarily managed and financed by municipalities.

Source: Created by presenter based on data from Ministry of Internal Affairs and Communications
Role Sharing for River Management: Basin level

Class A Rivers: Mainly managed at the national level.
Class B Rivers: Managed by prefectural level.

Exceptions: Designated segments of Class A Rivers (upstream sections relatively easier to manage or have lower population density in surrounding areas) can be managed at prefectural/municipal level.
National intervention: Finance and Personnel

National influence on municipalities through finance (transfers from national government) and secondees from national government.

- **Capacity building** for municipal officials - *May be useful in context of decentralization*
- **Influence** towards municipalities - *To introduce new legislations/ regulations, from CG’s perspective*
- **Networking** is critical to secure support - *To obtain future subsidies and support, from LG’s perspective*

### Reliance on Grant Tax from National Government – All Sectors (%)

<table>
<thead>
<tr>
<th>Population</th>
<th>No. of Cities</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000,000 &lt;</td>
<td>11</td>
<td>4.8</td>
</tr>
<tr>
<td>500,000 &lt;</td>
<td>17</td>
<td>7.6</td>
</tr>
<tr>
<td>250,000 &lt;</td>
<td>63</td>
<td>9.9</td>
</tr>
<tr>
<td>100,000 &lt;</td>
<td>176</td>
<td>13.5</td>
</tr>
<tr>
<td>50,000 &lt;</td>
<td>270</td>
<td>20.0</td>
</tr>
<tr>
<td>10,000 &lt;</td>
<td>252</td>
<td>32.8</td>
</tr>
</tbody>
</table>

Source: Adapted from Urban Data Pack Database, Toyo Keizai
Prefecture-level ordinances require developers to construct retention basins for flood control to mitigate the increased flood risk of new large-scale development. (part of planning permission)

These ordinances are mandatory, and infractions are subject to fines.

<table>
<thead>
<tr>
<th>Number and Capacity of Retarding Basins in Yokohama City</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>--------------------------------------</td>
</tr>
<tr>
<td>Public</td>
</tr>
<tr>
<td>Private</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Yokohama City for all data
Upstream versus Downstream Municipalities: Dams (Japan’s water storage is relatively low)

- Location is determined at national level in cooperation with river basin unit coordination committee
- Frequent rain throughout the year (more than double of world average) – less need to store water constantly

Source: Ministry of Land, Infrastructure, Transport and Tourism
Supplemental Information: Water Resources and Water Usage in Japan

Unit: billion m³/year

- Rainfall: 640
- Evapotranspiration: 230
- Net water resources: 410

SURFACE WATER

- Base Runoff
- Flood Runoff

GROUND WATER

- Domestic Water: 16
- Industrial Water: 13
- Agricultural Water: 55

Recovery rate for industrial water is 79%

Source: Adapted from White Paper on Water Resources
Supplemental Information: Water Resources and Water Usage in Japan

- Dam Water: 46%
- River Water: 26%
- Well Water: 20%
- Underground Water: 4%
- Lake Water: 1%
- Others: 3%

Source: Adapted from White Paper on Water Resources
How has Japan managed urban growth?

Highly concentrated
Taito Ward exceeding 320/ha
Rural areas at the periphery
Less extensive Tokyo Harbor

Largest urban area by 1970
“Fingers” of development along rail
Tokyo proper losing population to suburbs

Redensification of the Tokyo proper
Greater Tokyo population reaching
30 million excluding rural areas

Source: https://perihele.wordpress.com/2014/04/18/mapping-japanese-city-spaces-greater-tokyo/
Land is preserved (for infrastructure) and protected (from floods) through robust Development Control.
Environment zoning: Assessing land development suitability and providing primary environmental consideration before planning for development.

- Reduce downstream infrastructure development costs
- Reduces resettlement/land acquisition

Land suitable for development excludes:
- Ecological protection areas
- Forests
- Prime agricultural areas
- Flood prone areas
- ...

The remaining area is land suitable for development.
Land is preserved (for infrastructure) and protected (from floods) through robust Development Control

- **Land use zones**: Regulate structures according to agreed upon standards.

- **Secure land**: Regulate development on land which infrastructure is planned (not at construction stage) and reduce land acquisition costs downstream.

- **Special zones**: Establish special zones which development is encouraged.

Land use classifications

Structures/facilities seeking Development permission
Plan Continuity and Political Influence

1. Bureaucrats are the professionals in policy formulation and finance allocation.
   a. Politicians influence specific sectoral policies of their interest: “road clan” “port clan” “pension clan”
   b. Long Liberal Democrat Party representation at the national + local level, but nothing fundamentally changed when the Democrat Party recently had power for 3 years
   c. This is also why plans and policies tend to be very rigid in Japan.

2. Two-tier plan set-up ensures implementation on the ground.
   a. Long term vision and strategies defined in the 10-20 year time frame.
      (e.g. Growth boundaries for UPAs and UCAs defined for next 10 years.)
   b. Specific plans backed by financing for every 5 years.

3. Plans are a shared democratic ground, a shared consensus of how a city should be developed by the people – agreement by public consultation cannot be overridden even by politicians.
   a. Not a compromise of all interests, but an agreement of what is important in the urban development direction