How can we get compact cities? Planning approaches & experience

Tadashi Matsumoto, Ph.D
Project Manager,
Regional Development Policy, OECD

Presentation at Compact Cities Technical Deep Dive, 1 November 2016, Tokyo, Japan
1. Compact cities – not only environmentally sustainable, but also economically viable.

2. Functional Urban Area (FUA) approach is crucial for both policies and governance in designing / implementing compact city policies.

3. In fast-urbanising cities, public space / infrastructure has an important role to play.
Compact City?

- Not at a city scale, but the metropolitan scale
- Focusing on “urban spatial form” – how can we use urban space in a more sustainable way?

**Dense and proximate development patterns**
- Urban land is intensively utilised
- Urban agglomerations are contiguous or close together
- Distinct border between urban and rural land use
- Public spaces are secured

**Urban areas linked by public transport systems**
- Effective use of urban land
- Public transport systems facilitate mobility in urban areas

**Accessibility to local services and jobs**
- Land use is mixed
- Most residents have access to local services either on foot or using public transport
Compact city policies can generate synergistic impacts:

<table>
<thead>
<tr>
<th>Compact city characteristics</th>
<th>Environmental benefits</th>
<th>Social benefits</th>
<th>Economic benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shorter intra-urban distances</td>
<td>Fewer CO2 emissions, Less pollution from automobiles</td>
<td>Higher mobility of low-income households, due to lower travel costs</td>
<td>Higher productivity due to shorter travel time for workers</td>
</tr>
<tr>
<td>Better access to diversity of local services and jobs</td>
<td>-</td>
<td>Higher quality of life due to access to local services (shops, hospitals, etc.)</td>
<td>Skilled labour force attracted by high quality of life Greater productivity due to more diversity, vitality, innovation and creativity</td>
</tr>
<tr>
<td>More efficient public service delivery</td>
<td>-</td>
<td>Public service level for social welfare maintained by improved efficiency</td>
<td>Lower infrastructure investments and cost of maintenance</td>
</tr>
</tbody>
</table>

Source: OECD (2012), Compact City Policies: A Comparative Assessment
Shifting towards Functional regions

- Many cities don’t match the city boundaries

Source: OECD calculations based on population density disaggregated with Corine Land Cover.
Good governance for metro areas

- Fragmentation of a metropolitan area into many municipalities reduces per capita GDP and productivity
  - A doubling of the number of municipalities per 100,000 inhabitants reduces productivity by 6%
Good governance for metro areas

• Negative impact of fragmentation can be reduced through organisations that coordinate policies in metro areas
  – Approximately half of the productivity penalty from municipal fragmentation disappears when governance bodies exist

• Metropolitan governance bodies are common throughout the OECD
Governance bodies typically make economic sense and improve quality of life in cities.
Street layout facilitates congestion

Manhattan, NYC

Bangkok
Street layout undermines potential to develop green and resilient cities
The five key policy strategies for compact city

1. Set explicit compact city goals
2. Encourage dense and contiguous development at urban fringes
3. Retrofit existing built-up areas
4. Enhance diversity and quality of life in urban centres
5. Minimise adverse negative effects
POLICY PRACTICES
1. MELBOURNE, AUSTRALIA

Major policy instruments:
• Revitalizing downtown by bringing houses (deregulation, technical and financial support, good urban design)

Density – Mixed Use
1997

3,763 dwellings

- red dots = 5 dwellings
- yellow dot = convenience store
2002

9,895 dwellings

= 5 dwellings

convenience store
2. PORTLAND, UNITED STATES

Major policy instruments

• 20-minutes neighbourhood
• “refill rate”
• Pioneer Courthouse Square / Pearl district
Storm water + heat island + perceived density
(green street, retrofitting in Portland)
Transforming a parking garage to Portland’s “Living Room” (Pioneer Courthouse Square)

3. VANCOUVER, CANADA

Major policy instruments

- Frequent transport corridors
- Densification of “grey” neighbourhoods
- Urban design in context
3-D density map

Portland
Max 35,524 pop/km²

Vancouver
Max 11,413 pop/km²

100 km

90 km
Retrofitting built-up areas + housing affordability (Laneway Housing, Vancouver)

Source: City of Vancouver (2013), Laneway housing how-to guide, vancouver.ca/files/cov/laneway-housing-howto-guide.pdf;
Urban design in contexts
(Southeast False Creek, Vancouver)

Source: City of Vancouver
Urban design in contexts
(Southeast False Creek, Vancouver)

Source: City of Vancouver
4. TOYAMA, JAPAN

Major policy instruments

- Focused public investment on TOD, revitalising urban centres
- Citizen’s engagement (in particular, the elderly and children)
Urban Renewal: Stimulating Private Investment (Toyama)
Shifting Population through Compact City Policies (Toyama)

#1 Population shift back into the city center

#2 Population shift to transportation corridors

#3 Projected population shift totals
- Green = Total city population
- Red = % of population in city center and along transportation corridors

Source: City of Toyama
Find out more:

http://dx.doi.org/10.1787/9789264167865-en

Also visit our website:
www.oecd.org/regional/compactcity
THANK YOU

Further contact:

Tadashi.matsumoto@oecd.org